



# DATA SHEET

**PRODUCT** **Metal Oxide Varistor**

**SERIES** JVT Series

**PART NO.** \_\_\_\_\_

**QUICK REFERENCE DATA**

| PARAMETER                                | VALUE       | UNIT  |
|--|-------------|-------|
| Size                                     | Ø5~Ø25      | mm    |
| Varistor Voltage<br>V1mA                 | 18~1100 V   | Volt  |
| Max. Clamping<br>Voltage                 | 40~1815 V   | Volt  |
| Withstanding Surge<br>Current ( 8/20µs ) | 100~20000 A | Amp   |
| Energy (10/1000µs)                       | 0.6~720 J   | Joule |

**ISSUE DATE** 2022/09/12

**REVISION DATE** 2024/02/22

**REFERENCE NO.** \_\_\_\_\_

**AEC-Q200 Qualified**

**RoHS COMPLIANCE ITEM**

**Halogen Free**

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## Features

1. RoHS / Halogen-Free (HF) compliant
2. Body size:  $\Phi 5 \sim \Phi 25\text{mm}$
3. Wide operating voltage range: 11Vac ~ 680 Vac
4. Operating temperature range:  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$
5. Storage temperature range:  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$
6. Agency recognition: UL 1449 4 th / CUL / VDE/ CQC

## Applications

1. Power supply
2. Home appliance
3. Industrial equipment
4. LED driver
5. Smart meter
6. Photovoltaic industry

## How to order

| Part Number Code |   |   |   |   |   |   |   |   |    |    |    |    |    |    |
|------------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| 1                | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| J                | V | T | 1 | 0 | S | 1 | 8 | 1 | K  | 6  | 5  | Y  | A  | W  |
| ①                |   |   | ② |   | ③ | ④ |   |   | ⑤  | ⑥  | ⑦  | ⑧  | ⑨  |    |

|   |              |  |   |                            |  |   |              |   |
|---|--------------|--|---|----------------------------|--|---|--------------|---|
| ① | Product Type | JVT series   | ④ | Varistor Voltage           | 180=18V<br>181=180V<br>182=1800V           | ⑦ | Lead Spacing | 5 = 5mm<br>7 = 7.5mm<br>1 = 10mm  |
| ② | Body Size    | 05 = 5mm<br>07 = 7mm<br>10 = 10mm<br>14 = 14mm<br>20 = 20mm<br>25 = 25mm | ⑤ | Varistor Voltage Tolerance | K=±10%<br>L = ±15%<br>M = ±20%<br>P = ±25% | ⑧ | Lead Style   | P = Straight Lead<br>Y = Vertical Kink Lead<br>*Special lead styles per request   |
| ③ | Series       | N = Standard<br>S = High Surge<br>U = Ultra Surge                        | ⑥ | Lead Diameter              | 6 = 0.6mm<br>8 = 0.8mm<br>1 = 1.0mm        | ⑨ | Packaging    | 50 = 5± 1.0mm for Straight lead<br>5± 0.5mm for Kink lead<br>U4 = 24mm min. for Bulk and Kink lead<br>U5 = 25mm min. for Bulk and Straight lead<br>AW = H0 16mm for Ammo and Kink lead<br>AY = H0 20mm for Ammo and Straight lead<br>RW = H0 16mm for T / R and Kink lead<br>RY = H0 20mm for T / R and Straight lead<br>*Special spec per request. |


## Standard Series Specification

### Agency Approvals

| Agency           | UL                                  | cUL                                 | VDE                                       |   | CQC  |  |
|------------------|-------------------------------------|-------------------------------------|---|---|--|--|
| Agency Approvals | UL1449<br>4 <sup>th</sup> Edition   | CSA 22.2<br>No. 269.5-17            | IEC61051-1<br>IEC61051-2<br>IEC61051-2-2  | IEC61051-1<br>IEC61051-2<br>IEC61051-2-2<br>IEC62368-1:2018/G.8.1 | GB/T10193-1997<br>GB/T10194-1997           | GB4943.1-2011<br>GB/T10193-1997<br>GB/T10194-1997<br>GB8898-2011 |
| Title            | Transient Voltage Surge Suppressors | Transient Voltage Surge Suppressors | Varistors for use in electronic equipment |   | Engaged in Voluntary Product Certification |  |
| File No.         | VZCA2.E325508                       | VZCA8.E325508                       | 5937/40004658/40046994                    |   | CQC15001130702/0703/0700/1017/0699         |  |
| Symbols          | ☆                                   |                                     | ○   | ●   | □  | ■  |

Ø 5mm

### Rating and Characteristics

| Part No.     | Varistor Voltage at 0.1mA |           | Maximum Allowable Voltage |        | Maximum Clamping Voltage |        | Withstanding Surge Current (8/20us) | Nominal Discharge Current (8/20us) | Rated Wattage | Energy (10/1000us) | Certification   |
|--------------|---------------------------|-----------|---------------------------|--------|--------------------------|--------|-------------------------------------|------------------------------------|---------------|--------------------|---|
|              | DC (V)                    | Tolerance | AC rms (V)                | DC (V) | V@ ic (V)                | ic (A) | 1 Time (A)                          | In (KA)                            | (W)           | (J)                |  |
| JVT 05N 180M | 18                        | ±20%      | 11                        | 14     | 40                       | 1      | 100                                 | 0.1                                | 0.01          | 0.6                | ☆ ○ □   |
| JVT 05N 220L | 22                        | ±15%      | 14                        | 18     | 48                       | 1      | 100                                 | 0.1                                | 0.01          | 0.7                | ☆ ○ □   |
| JVT 05N 270K | 27                        | ±10%      | 17                        | 22     | 60                       | 1      | 100                                 | 0.1                                | 0.01          | 0.9                | ☆ ○ □   |
| JVT 05N 330K | 33                        | ±10%      | 20                        | 26     | 73                       | 1      | 100                                 | 0.1                                | 0.01          | 1.1                | ☆ ○ □   |
| JVT 05N 390K | 39                        | ±10%      | 25                        | 31     | 86                       | 1      | 100                                 | 0.1                                | 0.01          | 1.2                | ☆ ○ □   |
| JVT 05N 470K | 47                        | ±10%      | 30                        | 38     | 104                      | 1      | 100                                 | 0.1                                | 0.01          | 1.5                | ☆ ○ □   |
| JVT 05N 560K | 56                        | ±10%      | 35                        | 45     | 123                      | 1      | 100                                 | 0.1                                | 0.01          | 1.8                | ☆ ○ □   |
| JVT 05N 680K | 68                        | ±10%      | 40                        | 56     | 150                      | 1      | 100                                 | 0.1                                | 0.01          | 2.1                | ☆ ○ □   |
| JVT 05N 820K | 82                        | ±10%      | 50                        | 65     | 145                      | 5      | 400                                 | 0.1                                | 0.1           | 2.8                | ☆ ○ □   |
| JVT 05N 101K | 100                       | ±10%      | 60                        | 85     | 175                      | 5      | 400                                 | 0.1                                | 0.1           | 3.5                | ☆ ○ □   |
| JVT 05N 121K | 120                       | ±10%      | 75                        | 100    | 210                      | 5      | 400                                 | 0.1                                | 0.1           | 4.0                | ☆ ○ □   |
| JVT 05N 151K | 150                       | ±10%      | 95                        | 125    | 260                      | 5      | 400                                 | 0.1                                | 0.1           | 5.5                | ☆ ○ □   |
| JVT 05N 181K | 180                       | ±10%      | 115                       | 150    | 320                      | 5      | 400                                 | 0.1                                | 0.1           | 6.5                | ☆ ○ □   |
| JVT 05N 201K | 200                       | ±10%      | 130                       | 170    | 355                      | 5      | 400                                 | 0.1                                | 0.1           | 7.1                | ☆ ○ □   |
| JVT 05N 221K | 220                       | ±10%      | 140                       | 180    | 380                      | 5      | 400                                 | 0.1                                | 0.1           | 7.8                | ☆ ○ □   |
| JVT 05N 241K | 240                       | ±10%      | 150                       | 200    | 415                      | 5      | 400                                 | 0.1                                | 0.1           | 8.4                | ☆ ○ □   |
| JVT 05N 271K | 270                       | ±10%      | 175                       | 225    | 475                      | 5      | 400                                 | 0.1                                | 0.1           | 9.9                | ☆ ○ □   |
| JVT 05N 301K | 300                       | ±10%      | 195                       | 250    | 525                      | 5      | 400                                 | 0.1                                | 0.1           | 10.5               | ☆ ○ □   |
| JVT 05N 331K | 330                       | ±10%      | 210                       | 275    | 575                      | 5      | 400                                 | 0.1                                | 0.1           | 11.5               | ☆ ○ □   |
| JVT 05N 361K | 360                       | ±10%      | 230                       | 300    | 620                      | 5      | 400                                 | 0.1                                | 0.1           | 13                 | ☆ ○ □   |
| JVT 05N 391K | 390                       | ±10%      | 250                       | 320    | 675                      | 5      | 400                                 | 0.1                                | 0.1           | 15                 | ☆ ○ □   |
| JVT 05N 431K | 430                       | ±10%      | 275                       | 350    | 745                      | 5      | 400                                 | 0.1                                | 0.1           | 16.5               | ☆ ○ □   |
| JVT 05N 471K | 470                       | ±10%      | 300                       | 385    | 810                      | 5      | 400                                 | 0.1                                | 0.1           | 17.5               | ☆ ○ □   |
| JVT 05N 511K | 510                       | ±10%      | 320                       | 418    | 880                      | 5      | 400                                 | 0.1                                | 0.1           | 18.5               | ☆ ○ □   |
| JVT 05N 561K | 560                       | ±10%      | 350                       | 460    | 940                      | 5      | 400                                 | 0.1                                | 0.1           | 19.5               | ☆ ○ □   |
| JVT 05N 621K | 620                       | ±10%      | 385                       | 505    | 1050                     | 5      | 400                                 | 0.1                                | 0.1           | 20.5               | ☆ ○ □   |
| JVT 05N 681K | 680                       | ±10%      | 420                       | 560    | 1150                     | 5      | 400                                 | 0.1                                | 0.1           | 21.5               | ☆ ○ □   |
| JVT 05N 751K | 750                       | ±10%      | 460                       | 615    | 1290                     | 5      | 400                                 | 0.1                                | 0.1           | 22.5               | ☆ ○ □   |

Ø 7mm

## Rating and Characteristics

| Part No.     | Varistor Voltage at 1mA |           | Maximum Allowable Voltage |        | Maximum Clamping Voltage |        | Withstanding Surge Current (8/20us) | Nominal Discharge Current (8/20us) | Rated Wattage | Energy (10/1000us) | Certification |
|--------------|-------------------------|-----------|---------------------------|--------|--------------------------|--------|-------------------------------------|------------------------------------|---------------|--------------------|---------------|
|              | DC (V)                  | Tolerance | AC rms (V)                | DC (V) | V@ ic (V)                | ic (A) | 1 Time (A)                          | In (KA)                            | (W)           | (J)                |               |
| JVT 07N 180M | 18                      | ±20%      | 11                        | 14     | 36                       | 2.5    | 250                                 | 0.15                               | 0.02          | 1.2                | ☆ ○ □         |
| JVT 07N 220L | 22                      | ±15%      | 14                        | 18     | 43                       | 2.5    | 250                                 | 0.15                               | 0.02          | 1.4                | ☆ ○ □         |
| JVT 07N 270K | 27                      | ±10%      | 17                        | 22     | 53                       | 2.5    | 250                                 | 0.15                               | 0.02          | 1.7                | ☆ ○ □         |
| JVT 07N 330K | 33                      | ±10%      | 20                        | 26     | 65                       | 2.5    | 250                                 | 0.15                               | 0.02          | 2.2                | ☆ ○ □         |
| JVT 07N 390K | 39                      | ±10%      | 25                        | 31     | 77                       | 2.5    | 250                                 | 0.15                               | 0.02          | 2.4                | ☆ ○ □         |
| JVT 07N 470K | 47                      | ±10%      | 30                        | 38     | 93                       | 2.5    | 250                                 | 0.15                               | 0.02          | 3.0                | ☆ ○ □         |
| JVT 07N 560K | 56                      | ±10%      | 35                        | 45     | 110                      | 2.5    | 250                                 | 0.15                               | 0.02          | 3.5                | ☆ ○ □         |
| JVT 07N 680K | 68                      | ±10%      | 40                        | 56     | 135                      | 2.5    | 250                                 | 0.15                               | 0.02          | 4.3                | ☆ ○ □         |
| JVT 07N 820K | 82                      | ±10%      | 50                        | 65     | 135                      | 10     | 1200                                | 0.5                                | 0.25          | 5.5                | ☆ ○ □         |
| JVT 07N 101K | 100                     | ±10%      | 60                        | 85     | 165                      | 10     | 1200                                | 0.5                                | 0.25          | 7.0                | ☆ ○ □         |
| JVT 07N 121K | 120                     | ±10%      | 75                        | 100    | 200                      | 10     | 1200                                | 0.5                                | 0.25          | 8.0                | ☆ ○ □         |
| JVT 07N 151K | 150                     | ±10%      | 95                        | 125    | 250                      | 10     | 1200                                | 0.5                                | 0.25          | 11.0               | ☆ ○ □         |
| JVT 07N 181K | 180                     | ±10%      | 115                       | 150    | 300                      | 10     | 1200                                | 0.5                                | 0.25          | 13.0               | ☆ ○ □         |
| JVT 07N 201K | 200                     | ±10%      | 130                       | 170    | 340                      | 10     | 1200                                | 0.5                                | 0.25          | 14.3               | ☆ ○ □         |
| JVT 07N 221K | 220                     | ±10%      | 140                       | 180    | 360                      | 10     | 1200                                | 0.5                                | 0.25          | 15.5               | ☆ ○ □         |
| JVT 07N 241K | 240                     | ±10%      | 150                       | 200    | 395                      | 10     | 1200                                | 0.5                                | 0.25          | 16.8               | ☆ ○ □         |
| JVT 07N 271K | 270                     | ±10%      | 175                       | 225    | 455                      | 10     | 1200                                | 0.5                                | 0.25          | 19.8               | ☆ ○ □         |
| JVT 07N 301K | 300                     | ±10%      | 195                       | 250    | 505                      | 10     | 1200                                | 0.5                                | 0.25          | 21.0               | ☆ ○ □         |
| JVT 07N 331K | 330                     | ±10%      | 210                       | 275    | 550                      | 10     | 1200                                | 0.5                                | 0.25          | 23                 | ☆ ○ □         |
| JVT 07N 361K | 360                     | ±10%      | 230                       | 300    | 595                      | 10     | 1200                                | 0.5                                | 0.25          | 26                 | ☆ ○ □         |
| JVT 07N 391K | 390                     | ±10%      | 250                       | 320    | 650                      | 10     | 1200                                | 0.5                                | 0.25          | 30                 | ☆ ○ □         |
| JVT 07N 431K | 430                     | ±10%      | 275                       | 350    | 710                      | 10     | 1200                                | 0.5                                | 0.25          | 33                 | ☆ ○ □         |
| JVT 07N 471K | 470                     | ±10%      | 300                       | 385    | 775                      | 10     | 1200                                | 0.5                                | 0.25          | 35                 | ☆ ○ □         |
| JVT 07N 511K | 510                     | ±10%      | 320                       | 418    | 842                      | 10     | 1200                                | 0.5                                | 0.25          | 37                 | ☆ ○ □         |
| JVT 07N 561K | 560                     | ±10%      | 350                       | 460    | 920                      | 10     | 1200                                | 0.5                                | 0.25          | 39                 | ☆ ○ □         |
| JVT 07N 621K | 620                     | ±10%      | 385                       | 505    | 1025                     | 10     | 1200                                | 0.5                                | 0.25          | 41                 | ☆ ○ □         |
| JVT 07N 681K | 680                     | ±10%      | 420                       | 560    | 1120                     | 10     | 1200                                | 0.5                                | 0.25          | 43                 | ☆ ○ □         |
| JVT 07N 751K | 750                     | ±10%      | 460                       | 615    | 1240                     | 10     | 1200                                | 0.5                                | 0.25          | 45                 | ☆ ○ □         |
| JVT 07N 781K | 780                     | ±10%      | 485                       | 640    | 1290                     | 10     | 1200                                | 0.5                                | 0.25          | 46                 | ☆ ○ □         |
| JVT 07N 821K | 820                     | ±10%      | 510                       | 670    | 1355                     | 10     | 1200                                | 0.5                                | 0.25          | 47                 | ☆ ○ □         |


Ø 10mm

## Rating and Characteristics

| Part No.     | Varistor Voltage at 1mA |           | Maximum Allowable Voltage |        | Maximum Clamping Voltage |        | Withstanding Surge Current (8/20us) | Nominal Discharge Current (8/20us) | Rated Wattage | Energy (10/1000us) | Certification |
|--------------|-------------------------|-----------|---------------------------|--------|--------------------------|--------|-------------------------------------|------------------------------------|---------------|--------------------|---------------|
|              | DC (V)                  | Tolerance | AC rms (V)                | DC (V) | V@ ic (V)                | ic (A) | 1 Time (A)                          | In (KA)                            | (W)           | (J)                |               |
| JVT 10N 180M | 18                      | ±20%      | 11                        | 14     | 36                       | 5      | 500                                 | 0.25                               | 0.05          | 2.4                | ☆ ○ □         |
| JVT 10N 220L | 22                      | ±15%      | 14                        | 18     | 43                       | 5      | 500                                 | 0.25                               | 0.05          | 2.7                | ☆ ○ □         |
| JVT 10N 270K | 27                      | ±10%      | 17                        | 22     | 53                       | 5      | 500                                 | 0.25                               | 0.05          | 3.5                | ☆ ○ □         |
| JVT 10N 330K | 33                      | ±10%      | 20                        | 26     | 65                       | 5      | 500                                 | 0.25                               | 0.05          | 4.4                | ☆ ○ □         |
| JVT 10N 390K | 39                      | ±10%      | 25                        | 31     | 77                       | 5      | 500                                 | 0.25                               | 0.05          | 4.7                | ☆ ○ □         |
| JVT 10N 470K | 47                      | ±10%      | 30                        | 38     | 93                       | 5      | 500                                 | 0.25                               | 0.05          | 6.0                | ☆ ○ □         |
| JVT 10N 560K | 56                      | ±10%      | 35                        | 45     | 110                      | 5      | 500                                 | 0.25                               | 0.05          | 7.0                | ☆ ○ □         |
| JVT 10N 680K | 68                      | ±10%      | 40                        | 56     | 135                      | 5      | 500                                 | 0.25                               | 0.05          | 8.5                | ☆ ○ □         |
| JVT 10N 820K | 82                      | ±10%      | 50                        | 65     | 135                      | 25     | 2500                                | 1.5                                | 0.4           | 11.0               | ☆ ○ □         |
| JVT 10N 101K | 100                     | ±10%      | 60                        | 85     | 165                      | 25     | 2500                                | 1.5                                | 0.4           | 14.0               | ☆ ○ □         |
| JVT 10N 121K | 120                     | ±10%      | 75                        | 100    | 200                      | 25     | 2500                                | 1.5                                | 0.4           | 16.0               | ☆ ○ □         |
| JVT 10N 151K | 150                     | ±10%      | 95                        | 125    | 250                      | 25     | 2500                                | 1.5                                | 0.4           | 22.0               | ☆ ○ □         |
| JVT 10N 181K | 180                     | ±10%      | 115                       | 150    | 300                      | 25     | 2500                                | 1.5                                | 0.4           | 26.0               | ☆ ● □         |
| JVT 10N 201K | 200                     | ±10%      | 130                       | 170    | 340                      | 25     | 2500                                | 1.5                                | 0.4           | 28.5               | ☆ ● ■         |
| JVT 10N 221K | 220                     | ±10%      | 140                       | 180    | 360                      | 25     | 2500                                | 1.5                                | 0.4           | 31.0               | ☆ ● ■         |
| JVT 10N 241K | 240                     | ±10%      | 150                       | 200    | 395                      | 25     | 2500                                | 1.5                                | 0.4           | 33.5               | ☆ ● ■         |
| JVT 10N 271K | 270                     | ±10%      | 175                       | 225    | 455                      | 25     | 2500                                | 1.5                                | 0.4           | 39.5               | ☆ ● ■         |
| JVT 10N 301K | 300                     | ±10%      | 195                       | 250    | 505                      | 25     | 2500                                | 1.5                                | 0.4           | 42.0               | ☆ ● ■         |
| JVT 10N 331K | 330                     | ±10%      | 210                       | 275    | 550                      | 25     | 2500                                | 1.5                                | 0.4           | 46                 | ☆ ● ■         |
| JVT 10N 361K | 360                     | ±10%      | 230                       | 300    | 595                      | 25     | 2500                                | 1.5                                | 0.4           | 52                 | ☆ ● ■         |
| JVT 10N 391K | 390                     | ±10%      | 250                       | 320    | 650                      | 25     | 2500                                | 1.5                                | 0.4           | 60                 | ☆ ● ■         |
| JVT 10N 431K | 430                     | ±10%      | 275                       | 350    | 710                      | 25     | 2500                                | 1.5                                | 0.4           | 66                 | ☆ ● ■         |
| JVT 10N 471K | 470                     | ±10%      | 300                       | 385    | 775                      | 25     | 2500                                | 1.5                                | 0.4           | 70                 | ☆ ● ■         |
| JVT 10N 511K | 510                     | ±10%      | 320                       | 418    | 842                      | 25     | 2500                                | 1.5                                | 0.4           | 74                 | ☆ ● ■         |
| JVT 10N 561K | 560                     | ±10%      | 350                       | 460    | 920                      | 25     | 2500                                | 1.5                                | 0.4           | 78                 | ☆ ● ■         |
| JVT 10N 621K | 620                     | ±10%      | 385                       | 505    | 1025                     | 25     | 2500                                | 1.5                                | 0.4           | 82                 | ☆ ● ■         |
| JVT 10N 681K | 680                     | ±10%      | 420                       | 560    | 1120                     | 25     | 2500                                | 1.5                                | 0.4           | 86                 | ☆ ● ■         |
| JVT 10N 751K | 750                     | ±10%      | 460                       | 615    | 1240                     | 25     | 2500                                | 1.5                                | 0.4           | 90                 | ☆ ● ■         |
| JVT 10N 781K | 780                     | ±10%      | 485                       | 640    | 1290                     | 25     | 2500                                | 1.5                                | 0.4           | 92                 | ☆ ● ■         |
| JVT 10N 821K | 820                     | ±10%      | 510                       | 670    | 1355                     | 25     | 2500                                | 1.5                                | 0.4           | 94                 | ☆ ● ■         |
| JVT 10N 911K | 910                     | ±10%      | 550                       | 745    | 1500                     | 25     | 2500                                | 1.5                                | 0.4           | 102                | ☆ ● ■         |
| JVT 10N 102K | 1000                    | ±10%      | 625                       | 825    | 1650                     | 25     | 2500                                | 1.5                                | 0.4           | 112                | ☆ ● ■         |
| JVT 10N 112K | 1100                    | ±10%      | 680                       | 895    | 1815                     | 25     | 2500                                | 1.5                                | 0.4           | 124                | ☆ ● ■         |


Ø 14mm

## Rating and Characteristics

| Part No.     | Varistor Voltage at 1mA |           | Maximum Allowable Voltage |        | Maximum Clamping Voltage |        | Withstanding Surge Current (8/20us) | Nominal Discharge Current (8/20us) | Rated Wattage | Energy (10/1000us) | Certification   |
|--------------|-------------------------|-----------|---------------------------|--------|--------------------------|--------|-------------------------------------|------------------------------------|---------------|--------------------|---|
|              | DC (V)                  | Tolerance | AC rms (V)                | DC (V) | V@ ic (V)                | ic (A) | 1 Time (A)                          | In (KA)                            | (W)           | (J)                |  |
| JVT 14N 180M | 18                      | ±20%      | 11                        | 14     | 36                       | 10     | 1000                                | 1                                  | 0.1           | 4.7                | ☆ ○ □   |
| JVT 14N 220L | 22                      | ±15%      | 14                        | 18     | 43                       | 10     | 1000                                | 1                                  | 0.1           | 5.4                | ☆ ○ □   |
| JVT 14N 270K | 27                      | ±10%      | 17                        | 22     | 53                       | 10     | 1000                                | 1                                  | 0.1           | 6.9                | ☆ ○ □   |
| JVT 14N 330K | 33                      | ±10%      | 20                        | 26     | 65                       | 10     | 1000                                | 1                                  | 0.1           | 8.8                | ☆ ○ □   |
| JVT 14N 390K | 39                      | ±10%      | 25                        | 31     | 77                       | 10     | 1000                                | 1                                  | 0.1           | 9.4                | ☆ ○ □   |
| JVT 14N 470K | 47                      | ±10%      | 30                        | 38     | 93                       | 10     | 1000                                | 1                                  | 0.1           | 12                 | ☆ ○ □   |
| JVT 14N 560K | 56                      | ±10%      | 35                        | 45     | 110                      | 10     | 1000                                | 1                                  | 0.1           | 14                 | ☆ ○ □   |
| JVT 14N 680K | 68                      | ±10%      | 40                        | 56     | 135                      | 10     | 1000                                | 1                                  | 0.1           | 17                 | ☆ ○ □   |
| JVT 14N 820K | 82                      | ±10%      | 50                        | 65     | 135                      | 50     | 4500                                | 3                                  | 0.6           | 22                 | ☆ ○ □   |
| JVT 14N 101K | 100                     | ±10%      | 60                        | 85     | 165                      | 50     | 4500                                | 3                                  | 0.6           | 28                 | ☆ ○ □   |
| JVT 14N 121K | 120                     | ±10%      | 75                        | 100    | 200                      | 50     | 4500                                | 3                                  | 0.6           | 32                 | ☆ ○ □   |
| JVT 14N 151K | 150                     | ±10%      | 95                        | 125    | 250                      | 50     | 4500                                | 3                                  | 0.6           | 44                 | ☆ ○ □   |
| JVT 14N 181K | 180                     | ±10%      | 115                       | 150    | 300                      | 50     | 4500                                | 3                                  | 0.6           | 52                 | ☆ ● □   |
| JVT 14N 201K | 200                     | ±10%      | 130                       | 170    | 340                      | 50     | 4500                                | 3                                  | 0.6           | 57                 | ☆ ● ■   |
| JVT 14N 221K | 220                     | ±10%      | 140                       | 180    | 360                      | 50     | 4500                                | 3                                  | 0.6           | 62                 | ☆ ● ■   |
| JVT 14N 241K | 240                     | ±10%      | 150                       | 200    | 395                      | 50     | 4500                                | 3                                  | 0.6           | 67                 | ☆ ● ■   |
| JVT 14N 271K | 270                     | ±10%      | 175                       | 225    | 455                      | 50     | 4500                                | 3                                  | 0.6           | 79                 | ☆ ● ■   |
| JVT 14N 301K | 300                     | ±10%      | 195                       | 250    | 505                      | 50     | 4500                                | 3                                  | 0.6           | 84                 | ☆ ● ■   |
| JVT 14N 331K | 330                     | ±10%      | 210                       | 275    | 550                      | 50     | 4500                                | 3                                  | 0.6           | 92                 | ☆ ● ■   |
| JVT 14N 361K | 360                     | ±10%      | 230                       | 300    | 595                      | 50     | 4500                                | 3                                  | 0.6           | 104                | ☆ ● ■   |
| JVT 14N 391K | 390                     | ±10%      | 250                       | 320    | 650                      | 50     | 4500                                | 3                                  | 0.6           | 120                | ☆ ● ■   |
| JVT 14N 431K | 430                     | ±10%      | 275                       | 350    | 710                      | 50     | 4500                                | 3                                  | 0.6           | 132                | ☆ ● ■   |
| JVT 14N 471K | 470                     | ±10%      | 300                       | 385    | 775                      | 50     | 4500                                | 3                                  | 0.6           | 140                | ☆ ● ■   |
| JVT 14N 511K | 510                     | ±10%      | 320                       | 418    | 842                      | 50     | 4500                                | 3                                  | 0.6           | 148                | ☆ ● ■   |
| JVT 14N 561K | 560                     | ±10%      | 350                       | 460    | 920                      | 50     | 4500                                | 3                                  | 0.6           | 156                | ☆ ● ■   |
| JVT 14N 621K | 620                     | ±10%      | 385                       | 505    | 1025                     | 50     | 4500                                | 3                                  | 0.6           | 164                | ☆ ● ■   |
| JVT 14N 681K | 680                     | ±10%      | 420                       | 560    | 1120                     | 50     | 4500                                | 3                                  | 0.6           | 172                | ☆ ● ■   |
| JVT 14N 751K | 750                     | ±10%      | 460                       | 615    | 1240                     | 50     | 4500                                | 3                                  | 0.6           | 180                | ☆ ● ■   |
| JVT 14N 781K | 780                     | ±10%      | 485                       | 640    | 1290                     | 50     | 4500                                | 3                                  | 0.6           | 184                | ☆ ● ■   |
| JVT 14N 821K | 820                     | ±10%      | 510                       | 670    | 1355                     | 50     | 4500                                | 3                                  | 0.6           | 188                | ☆ ● ■   |
| JVT 14N 911K | 910                     | ±10%      | 550                       | 745    | 1500                     | 50     | 4500                                | 3                                  | 0.6           | 204                | ☆ ● ■   |
| JVT 14N 102K | 1000                    | ±10%      | 625                       | 825    | 1650                     | 50     | 4500                                | 3                                  | 0.6           | 224                | ☆ ● ■   |
| JVT 14N 112K | 1100                    | ±10%      | 680                       | 895    | 1815                     | 50     | 4500                                | 3                                  | 0.6           | 248                | ☆ ● ■   |

Ø 20mm

## Rating and Characteristics

| Part No.     | Varistor Voltage at 1mA |           | Maximum Allowable Voltage |        | Maximum Clamping Voltage |        | Withstanding Surge Current (8/20us) | Nominal Discharge Current (8/20us) | Rated Wattage | Energy (10/1000us) | Certification   |
|--------------|-------------------------|-----------|---------------------------|--------|--------------------------|--------|-------------------------------------|------------------------------------|---------------|--------------------|---|
|              | DC (V)                  | Tolerance | AC rms (V)                | DC (V) | V@ ic (V)                | ic (A) | 1 Time (A)                          | In (KA)                            | (W)           | (J)                |  |
| JVT 20N 220M | 22                      | ±20%      | 14                        | 18     | 43                       | 20     | 2000                                | 2                                  | 0.2           | 8                  | ☆ ○ □   |
| JVT 20N 270M | 27                      | ±20%      | 17                        | 22     | 53                       | 20     | 2000                                | 2                                  | 0.2           | 10                 | ☆ ○ □   |
| JVT 20N 330M | 33                      | ±20%      | 20                        | 26     | 65                       | 20     | 2000                                | 2                                  | 0.2           | 12                 | ☆ ○ □   |
| JVT 20N 390L | 39                      | ±15%      | 25                        | 31     | 77                       | 20     | 2000                                | 2                                  | 0.2           | 14                 | ☆ ○ □   |
| JVT 20N 470L | 47                      | ±15%      | 30                        | 38     | 93                       | 20     | 2000                                | 2                                  | 0.2           | 17                 | ☆ ○ □   |
| JVT 20N 560L | 56                      | ±15%      | 35                        | 45     | 110                      | 20     | 2000                                | 2                                  | 0.2           | 20                 | ☆ ○ □   |
| JVT 20N 680L | 68                      | ±15%      | 40                        | 56     | 135                      | 20     | 2000                                | 2                                  | 0.2           | 24                 | ☆ ○ □   |
| JVT 20N 820L | 82                      | ±15%      | 50                        | 65     | 135                      | 100    | 6500                                | 3                                  | 1             | 44                 | ☆ ○ □   |
| JVT 20N 101K | 100                     | ±10%      | 60                        | 85     | 165                      | 100    | 6500                                | 3                                  | 1             | 56                 | ☆ ○ □   |
| JVT 20N 121K | 120                     | ±10%      | 75                        | 100    | 200                      | 100    | 6500                                | 3                                  | 1             | 64                 | ☆ ○ □   |
| JVT 20N 151K | 150                     | ±10%      | 95                        | 125    | 250                      | 100    | 6500                                | 3                                  | 1             | 88                 | ☆ ○ □   |
| JVT 20N 181K | 180                     | ±10%      | 115                       | 150    | 300                      | 100    | 6500                                | 3                                  | 1             | 104                | ☆ ● □   |
| JVT 20N 201K | 200                     | ±10%      | 130                       | 170    | 340                      | 100    | 6500                                | 3                                  | 1             | 114                | ☆ ● ■   |
| JVT 20N 221K | 220                     | ±10%      | 140                       | 180    | 360                      | 100    | 6500                                | 3                                  | 1             | 124                | ☆ ● ■   |
| JVT 20N 241K | 240                     | ±10%      | 150                       | 200    | 395                      | 100    | 6500                                | 3                                  | 1             | 134                | ☆ ● ■   |
| JVT 20N 271K | 270                     | ±10%      | 175                       | 225    | 455                      | 100    | 6500                                | 3                                  | 1             | 158                | ☆ ● ■   |
| JVT 20N 301K | 300                     | ±10%      | 195                       | 250    | 505                      | 100    | 6500                                | 3                                  | 1             | 168                | ☆ ● ■   |
| JVT 20N 331K | 330                     | ±10%      | 210                       | 275    | 550                      | 100    | 6500                                | 3                                  | 1             | 184                | ☆ ● ■   |
| JVT 20N 361K | 360                     | ±10%      | 230                       | 300    | 595                      | 100    | 6500                                | 3                                  | 1             | 208                | ☆ ● ■   |
| JVT 20N 391K | 390                     | ±10%      | 250                       | 320    | 650                      | 100    | 6500                                | 3                                  | 1             | 240                | ☆ ● ■   |
| JVT 20N 431K | 430                     | ±10%      | 275                       | 350    | 710                      | 100    | 6500                                | 3                                  | 1             | 264                | ☆ ● ■   |
| JVT 20N 471K | 470                     | ±10%      | 300                       | 385    | 775                      | 100    | 6500                                | 3                                  | 1             | 280                | ☆ ● ■   |
| JVT 20N 511K | 510                     | ±10%      | 320                       | 418    | 842                      | 100    | 6500                                | 3                                  | 1             | 296                | ☆ ● ■   |
| JVT 20N 561K | 560                     | ±10%      | 350                       | 460    | 920                      | 100    | 6500                                | 3                                  | 1             | 312                | ☆ ● ■   |
| JVT 20N 621K | 620                     | ±10%      | 385                       | 505    | 1025                     | 100    | 6500                                | 3                                  | 1             | 328                | ☆ ● ■   |
| JVT 20N 681K | 680                     | ±10%      | 420                       | 560    | 1120                     | 100    | 6500                                | 3                                  | 1             | 344                | ☆ ● ■   |
| JVT 20N 751K | 750                     | ±10%      | 460                       | 615    | 1240                     | 100    | 6500                                | 3                                  | 1             | 360                | ☆ ● ■   |
| JVT 20N 781K | 780                     | ±10%      | 485                       | 640    | 1290                     | 100    | 6500                                | 3                                  | 1             | 368                | ☆ ● ■   |
| JVT 20N 821K | 820                     | ±10%      | 510                       | 670    | 1355                     | 100    | 6500                                | 3                                  | 1             | 376                | ☆ ● ■   |
| JVT 20N 911K | 910                     | ±10%      | 550                       | 745    | 1500                     | 100    | 6500                                | 3                                  | 1             | 408                | ☆ ● ■   |
| JVT 20N 102K | 1000                    | ±10%      | 625                       | 825    | 1650                     | 100    | 6500                                | 3                                  | 1             | 448                | ☆ ● ■   |
| JVT 20N 112K | 1100                    | ±10%      | 680                       | 895    | 1815                     | 100    | 6500                                | 3                                  | 1             | 496                | ☆ ● ■   |

Ø 25mm

## Rating and Characteristics

| Part No.     | Varistor Voltage at 1mA |           | Maximum Allowable Voltage |        | Maximum Clamping Voltage |        | Withstanding Surge Current (8/20us) | Nominal Discharge Current (8/20us) | Rated Wattage | Energy (10/1000us) | Certification |
|--------------|-------------------------|-----------|---------------------------|--------|--------------------------|--------|-------------------------------------|------------------------------------|---------------|--------------------|---------------|
|              | DC (V)                  | Tolerance | AC rms (V)                | DC (V) | V@ ic (V)                | ic (A) | 1 Time (A)                          | In (KA)                            | (W)           | (J)                |               |
| JVT 25N 201K | 200                     | ±10%      | 130                       | 170    | 355                      | 150    | 20000                               | 5                                  | 1.2           | 190                | ☆ ●           |
| JVT 25N 221K | 220                     | ±10%      | 140                       | 180    | 380                      | 150    | 20000                               | 5                                  | 1.2           | 205                | ☆ ●           |
| JVT 25N 241K | 240                     | ±10%      | 150                       | 200    | 415                      | 150    | 20000                               | 5                                  | 1.2           | 225                | ☆ ●           |
| JVT 25N 271K | 270                     | ±10%      | 175                       | 225    | 445                      | 150    | 20000                               | 5                                  | 1.2           | 255                | ☆ ●           |
| JVT 25N 301K | 300                     | ±10%      | 195                       | 250    | 495                      | 150    | 20000                               | 5                                  | 1.2           | 280                | ☆ ●           |
| JVT 25N 331K | 330                     | ±10%      | 210                       | 275    | 545                      | 150    | 20000                               | 5                                  | 1.2           | 305                | ☆ ●           |
| JVT 25N 361K | 360                     | ±10%      | 230                       | 300    | 595                      | 150    | 20000                               | 5                                  | 1.2           | 330                | ☆ ●           |
| JVT 25N 391K | 390                     | ±10%      | 250                       | 320    | 645                      | 150    | 20000                               | 5                                  | 1.2           | 360                | ☆ ●           |
| JVT 25N 431K | 430                     | ±10%      | 275                       | 350    | 710                      | 150    | 20000                               | 5                                  | 1.2           | 380                | ☆ ●           |
| JVT 25N 471K | 470                     | ±10%      | 300                       | 385    | 775                      | 150    | 20000                               | 5                                  | 1.2           | 400                | ☆ ●           |
| JVT 25N 511K | 510                     | ±10%      | 320                       | 418    | 840                      | 150    | 20000                               | 5                                  | 1.2           | 420                | ☆ ●           |
| JVT 25N 561K | 560                     | ±10%      | 350                       | 460    | 925                      | 150    | 20000                               | 5                                  | 1.2           | 440                | ☆ ●           |
| JVT 25N 621K | 620                     | ±10%      | 385                       | 505    | 1025                     | 150    | 20000                               | 5                                  | 1.2           | 460                | ☆ ●           |
| JVT 25N 681K | 680                     | ±10%      | 420                       | 560    | 1125                     | 150    | 20000                               | 5                                  | 1.2           | 480                | ☆ ●           |
| JVT 25N 751K | 750                     | ±10%      | 460                       | 615    | 1240                     | 150    | 20000                               | 5                                  | 1.2           | 520                | ☆ ●           |
| JVT 25N 781K | 780                     | ±10%      | 485                       | 640    | 1290                     | 150    | 20000                               | 5                                  | 1.2           | 540                | ☆ ●           |
| JVT 25N 821K | 820                     | ±10%      | 510                       | 670    | 1360                     | 150    | 20000                               | 5                                  | 1.2           | 570                | ☆ ●           |
| JVT 25N 911K | 910                     | ±10%      | 550                       | 745    | 1500                     | 150    | 20000                               | 5                                  | 1.2           | 620                | ☆ ●           |




## High Surge Series Specification

### Agency Approvals

| Agency           | UL                                  | CUL                                 | VDE                                       |   | CQC  |  |
|------------------|-------------------------------------|-------------------------------------|---|---|--|--|
| Agency Approvals | UL1449<br>4 <sup>th</sup> Edition   | CSA 22.2<br>No. 269.5-17            | IEC61051-1<br>IEC61051-2<br>IEC61051-2-2  | IEC61051-1<br>IEC61051-2<br>IEC61051-2-2<br>IEC62368-1:2018/G.8.1 | GB/T10193-1997<br>GB/T10194-1997           | GB4943.1-2011<br>GB/T10193-1997<br>GB/T10194-1997<br>GB8898-2011 |
| Title            | Transient Voltage Surge Suppressors | Transient Voltage Surge Suppressors | Varistors for use in electronic equipment |   | Engaged in Voluntary Product Certification |  |
| File No.         | VZCA2.E325508                       | VZCA8.E325508                       | 40004658                                  |   | CQC15001130702/0703/0700/1017/0699         |  |
| Symbols          | ☆                                   |                                     | ○   | ●   | □  | ■  |

### Ø 5mm

### Rating and Characteristics

| Part No.     | Varistor Voltage at 0.1mA |           | Maximum Allowable Voltage |        | Maximum Clamping Voltage |        | Withstanding Surge Current (8/20us) | Nominal Discharge Current (8/20us) | Rated Wattage | Energy (10/1000us) | Certification   |
|--------------|---------------------------|-----------|---------------------------|--------|--------------------------|--------|-------------------------------------|------------------------------------|---------------|--------------------|---|
|              | DC (V)                    | Tolerance | AC rms (V)                | DC (V) | V@ ic (V)                | ic (A) | 1 Time (A)                          | In (KA)                            | (W)           | (J)                |  |
| JVT 05S 180M | 18                        | ±20%      | 11                        | 14     | 40                       | 1      | 250                                 | 0.1                                | 0.01          | 0.7                | ☆ ○ □   |
| JVT 05S 220L | 22                        | ±15%      | 14                        | 18     | 48                       | 1      | 250                                 | 0.1                                | 0.01          | 0.8                | ☆ ○ □   |
| JVT 05S 270K | 27                        | ±10%      | 17                        | 22     | 60                       | 1      | 250                                 | 0.1                                | 0.01          | 1.1                | ☆ ○ □   |
| JVT 05S 330K | 33                        | ±10%      | 20                        | 26     | 73                       | 1      | 250                                 | 0.1                                | 0.01          | 1.3                | ☆ ○ □   |
| JVT 05S 390K | 39                        | ±10%      | 25                        | 31     | 86                       | 1      | 250                                 | 0.1                                | 0.01          | 1.5                | ☆ ○ □   |
| JVT 05S 470K | 47                        | ±10%      | 30                        | 38     | 104                      | 1      | 250                                 | 0.1                                | 0.01          | 1.8                | ☆ ○ □   |
| JVT 05S 560K | 56                        | ±10%      | 35                        | 45     | 123                      | 1      | 250                                 | 0.1                                | 0.01          | 2.2                | ☆ ○ □   |
| JVT 05S 680K | 68                        | ±10%      | 40                        | 56     | 150                      | 1      | 250                                 | 0.1                                | 0.01          | 2.6                | ☆ ○ □   |
| JVT 05S 820K | 82                        | ±10%      | 50                        | 65     | 145                      | 5      | 800                                 | 0.1                                | 0.1           | 3.5                | ☆ ○ □   |
| JVT 05S 101K | 100                       | ±10%      | 60                        | 85     | 175                      | 5      | 800                                 | 0.1                                | 0.1           | 4.5                | ☆ ○ □   |
| JVT 05S 121K | 120                       | ±10%      | 75                        | 100    | 210                      | 5      | 800                                 | 0.1                                | 0.1           | 5.5                | ☆ ○ □   |
| JVT 05S 151K | 150                       | ±10%      | 95                        | 125    | 260                      | 5      | 800                                 | 0.1                                | 0.1           | 6.5                | ☆ ○ □   |
| JVT 05S 181K | 180                       | ±10%      | 115                       | 150    | 320                      | 5      | 800                                 | 0.1                                | 0.1           | 8.0                | ☆ ○ □   |
| JVT 05S 201K | 200                       | ±10%      | 130                       | 170    | 355                      | 5      | 800                                 | 0.1                                | 0.1           | 8.5                | ☆ ○ □   |
| JVT 05S 221K | 220                       | ±10%      | 140                       | 180    | 380                      | 5      | 800                                 | 0.1                                | 0.1           | 9.0                | ☆ ○ □   |
| JVT 05S 241K | 240                       | ±10%      | 150                       | 200    | 415                      | 5      | 800                                 | 0.1                                | 0.1           | 10.5               | ☆ ○ □   |
| JVT 05S 271K | 270                       | ±10%      | 175                       | 225    | 475                      | 5      | 800                                 | 0.1                                | 0.1           | 11                 | ☆ ○ □   |
| JVT 05S 301K | 300                       | ±10%      | 195                       | 250    | 525                      | 5      | 800                                 | 0.1                                | 0.1           | 12                 | ☆ ○ □   |
| JVT 05S 331K | 330                       | ±10%      | 210                       | 275    | 575                      | 5      | 800                                 | 0.1                                | 0.1           | 13                 | ☆ ○ □   |
| JVT 05S 361K | 360                       | ±10%      | 230                       | 300    | 620                      | 5      | 800                                 | 0.1                                | 0.1           | 16                 | ☆ ○ □   |
| JVT 05S 391K | 390                       | ±10%      | 250                       | 320    | 675                      | 5      | 800                                 | 0.1                                | 0.1           | 17                 | ☆ ○ □   |
| JVT 05S 431K | 430                       | ±10%      | 275                       | 350    | 745                      | 5      | 800                                 | 0.1                                | 0.1           | 20                 | ☆ ○ □   |
| JVT 05S 471K | 470                       | ±10%      | 300                       | 385    | 810                      | 5      | 800                                 | 0.1                                | 0.1           | 21                 | ☆ ○ □   |
| JVT 05S 511K | 510                       | ±10%      | 320                       | 418    | 880                      | 5      | 800                                 | 0.1                                | 0.1           | 22                 | ☆ ○ □   |
| JVT 05S 561K | 560                       | ±10%      | 350                       | 460    | 940                      | 5      | 800                                 | 0.1                                | 0.1           | 25                 | ☆ ○ □   |
| JVT 05S 621K | 620                       | ±10%      | 385                       | 505    | 1050                     | 5      | 800                                 | 0.1                                | 0.1           | 27                 | ☆ ○ □   |
| JVT 05S 681K | 680                       | ±10%      | 420                       | 560    | 1150                     | 5      | 800                                 | 0.1                                | 0.1           | 28                 | ☆ ○ □   |
| JVT 05S 751K | 750                       | ±10%      | 460                       | 615    | 1290                     | 5      | 800                                 | 0.1                                | 0.1           | 29                 | ☆ ○ □   |


Ø 7mm

## Rating and Characteristics

| Part No.     | Varistor Voltage at 1mA |           | Maximum Allowable Voltage |        | Maximum Clamping Voltage |        | Withstanding Surge Current (8/20us) | Nominal Discharge Current (8/20us) | Rated Wattage | Energy (10/1000us) | Certification |
|--------------|-------------------------|-----------|---------------------------|--------|--------------------------|--------|-------------------------------------|------------------------------------|---------------|--------------------|---------------|
|              | DC (V)                  | Tolerance | AC rms (V)                | DC (V) | V@ ic (V)                | ic (A) | 1 Time (A)                          | In (KA)                            | (W)           | (J)                |               |
| JVT 07S 180M | 18                      | ±20%      | 11                        | 14     | 36                       | 2.5    | 500                                 | 0.15                               | 0.02          | 1.5                | ☆ ○ □         |
| JVT 07S 220L | 22                      | ±15%      | 14                        | 18     | 43                       | 2.5    | 500                                 | 0.15                               | 0.02          | 1.7                | ☆ ○ □         |
| JVT 07S 270K | 27                      | ±10%      | 17                        | 22     | 53                       | 2.5    | 500                                 | 0.15                               | 0.02          | 2.1                | ☆ ○ □         |
| JVT 07S 330K | 33                      | ±10%      | 20                        | 26     | 65                       | 2.5    | 500                                 | 0.15                               | 0.02          | 2.8                | ☆ ○ □         |
| JVT 07S 390K | 39                      | ±10%      | 25                        | 31     | 77                       | 2.5    | 500                                 | 0.15                               | 0.02          | 3.0                | ☆ ○ □         |
| JVT 07S 470K | 47                      | ±10%      | 30                        | 38     | 93                       | 2.5    | 500                                 | 0.15                               | 0.02          | 3.8                | ☆ ○ □         |
| JVT 07S 560K | 56                      | ±10%      | 35                        | 45     | 110                      | 2.5    | 500                                 | 0.15                               | 0.02          | 4.4                | ☆ ○ □         |
| JVT 07S 680K | 68                      | ±10%      | 40                        | 56     | 135                      | 2.5    | 500                                 | 0.15                               | 0.02          | 5.4                | ☆ ○ □         |
| JVT 07S 820K | 82                      | ±10%      | 50                        | 65     | 135                      | 10     | 1750                                | 0.5                                | 0.25          | 7.0                | ☆ ○ □         |
| JVT 07S 101K | 100                     | ±10%      | 60                        | 85     | 165                      | 10     | 1750                                | 0.5                                | 0.25          | 9.0                | ☆ ○ □         |
| JVT 07S 121K | 120                     | ±10%      | 75                        | 100    | 200                      | 10     | 1750                                | 0.5                                | 0.25          | 11.0               | ☆ ○ □         |
| JVT 07S 151K | 150                     | ±10%      | 95                        | 125    | 250                      | 10     | 1750                                | 0.5                                | 0.25          | 13.0               | ☆ ○ □         |
| JVT 07S 181K | 180                     | ±10%      | 115                       | 150    | 300                      | 10     | 1750                                | 0.5                                | 0.25          | 16.0               | ☆ ○ □         |
| JVT 07S 201K | 200                     | ±10%      | 130                       | 170    | 340                      | 10     | 1750                                | 0.5                                | 0.25          | 17.5               | ☆ ○ □         |
| JVT 07S 221K | 220                     | ±10%      | 140                       | 180    | 360                      | 10     | 1750                                | 0.5                                | 0.25          | 19.0               | ☆ ○ □         |
| JVT 07S 241K | 240                     | ±10%      | 150                       | 200    | 395                      | 10     | 1750                                | 0.5                                | 0.25          | 21.0               | ☆ ○ □         |
| JVT 07S 271K | 270                     | ±10%      | 175                       | 225    | 455                      | 10     | 1750                                | 0.5                                | 0.25          | 24                 | ☆ ○ □         |
| JVT 07S 301K | 300                     | ±10%      | 195                       | 250    | 505                      | 10     | 1750                                | 0.5                                | 0.25          | 26.0               | ☆ ○ □         |
| JVT 07S 331K | 330                     | ±10%      | 210                       | 275    | 550                      | 10     | 1750                                | 0.5                                | 0.25          | 28                 | ☆ ○ □         |
| JVT 07S 361K | 360                     | ±10%      | 230                       | 300    | 595                      | 10     | 1750                                | 0.5                                | 0.25          | 32                 | ☆ ○ □         |
| JVT 07S 391K | 390                     | ±10%      | 250                       | 320    | 650                      | 10     | 1750                                | 0.5                                | 0.25          | 35                 | ☆ ○ □         |
| JVT 07S 431K | 430                     | ±10%      | 275                       | 350    | 710                      | 10     | 1750                                | 0.5                                | 0.25          | 40                 | ☆ ○ □         |
| JVT 07S 471K | 470                     | ±10%      | 300                       | 385    | 775                      | 10     | 1750                                | 0.5                                | 0.25          | 42                 | ☆ ○ □         |
| JVT 07S 511K | 510                     | ±10%      | 320                       | 418    | 842                      | 10     | 1750                                | 0.5                                | 0.25          | 45                 | ☆ ○ □         |
| JVT 07S 561K | 560                     | ±10%      | 350                       | 460    | 920                      | 10     | 1750                                | 0.5                                | 0.25          | 51                 | ☆ ○ □         |
| JVT 07S 621K | 620                     | ±10%      | 385                       | 505    | 1025                     | 10     | 1750                                | 0.5                                | 0.25          | 54                 | ☆ ○ □         |
| JVT 07S 681K | 680                     | ±10%      | 420                       | 560    | 1120                     | 10     | 1750                                | 0.5                                | 0.25          | 56                 | ☆ ○ □         |
| JVT 07S 751K | 750                     | ±10%      | 460                       | 615    | 1240                     | 10     | 1750                                | 0.5                                | 0.25          | 58                 | ☆ ○ □         |
| JVT 07S 781K | 780                     | ±10%      | 485                       | 640    | 1290                     | 10     | 1750                                | 0.5                                | 0.25          | 59                 | ☆ ○ □         |
| JVT 07S 821K | 820                     | ±10%      | 510                       | 670    | 1355                     | 10     | 1750                                | 0.5                                | 0.25          | 60                 | ☆ ○ □         |


Ø 10mm

## Rating and Characteristics

| Part No.     | Varistor Voltage at 1mA |           | Maximum Allowable Voltage |        | Maximum Clamping Voltage |        | Withstanding Surge Current (8/20us) | Nominal Discharge Current (8/20us) | Rated Wattage | Energy (10/1000us) | Certification   |
|--------------|-------------------------|-----------|---------------------------|--------|--------------------------|--------|-------------------------------------|------------------------------------|---------------|--------------------|---|
|              | DC (V)                  | Tolerance | AC rms (V)                | DC (V) | V@ ic (V)                | ic (A) | 1 Time (A)                          | In (KA)                            | (W)           | (J)                |  |
| JVT 10S 180M | 18                      | ±20%      | 11                        | 14     | 36                       | 5      | 1000                                | 0.5                                | 0.05          | 2.6                | ☆ ○ □   |
| JVT 10S 220L | 22                      | ±15%      | 14                        | 18     | 43                       | 5      | 1000                                | 0.5                                | 0.05          | 3.2                | ☆ ○ □   |
| JVT 10S 270K | 27                      | ±10%      | 17                        | 22     | 53                       | 5      | 1000                                | 0.5                                | 0.05          | 3.9                | ☆ ○ □   |
| JVT 10S 330K | 33                      | ±10%      | 20                        | 26     | 65                       | 5      | 1000                                | 0.5                                | 0.05          | 4.8                | ☆ ○ □   |
| JVT 10S 390K | 39                      | ±10%      | 25                        | 31     | 77                       | 5      | 1000                                | 0.5                                | 0.05          | 5.6                | ☆ ○ □   |
| JVT 10S 470K | 47                      | ±10%      | 30                        | 38     | 93                       | 5      | 1000                                | 0.5                                | 0.05          | 6.8                | ☆ ○ □   |
| JVT 10S 560K | 56                      | ±10%      | 35                        | 45     | 110                      | 5      | 1000                                | 0.5                                | 0.05          | 8.1                | ☆ ○ □   |
| JVT 10S 680K | 68                      | ±10%      | 40                        | 56     | 150                      | 5      | 1000                                | 0.5                                | 0.05          | 9.8                | ☆ ○ □   |
| JVT 10S 820K | 82                      | ±10%      | 50                        | 65     | 135                      | 25     | 3500                                | 1.5                                | 0.4           | 14                 | ☆ ○ □   |
| JVT 10S 101K | 100                     | ±10%      | 60                        | 85     | 165                      | 25     | 3500                                | 1.5                                | 0.4           | 18                 | ☆ ○ □   |
| JVT 10S 121K | 120                     | ±10%      | 75                        | 100    | 200                      | 25     | 3500                                | 1.5                                | 0.4           | 22                 | ☆ ○ □   |
| JVT 10S 151K | 150                     | ±10%      | 95                        | 125    | 250                      | 25     | 3500                                | 1.5                                | 0.4           | 25                 | ☆ ○ □   |
| JVT 10S 181K | 180                     | ±10%      | 115                       | 150    | 300                      | 25     | 3500                                | 1.5                                | 0.4           | 32                 | ☆ ● □   |
| JVT 10S 201K | 200                     | ±10%      | 130                       | 170    | 340                      | 25     | 3500                                | 1.5                                | 0.4           | 35                 | ☆ ● ■   |
| JVT 10S 221K | 220                     | ±10%      | 140                       | 180    | 360                      | 25     | 3500                                | 1.5                                | 0.4           | 39                 | ☆ ● ■   |
| JVT 10S 241K | 240                     | ±10%      | 150                       | 200    | 395                      | 25     | 3500                                | 1.5                                | 0.4           | 42                 | ☆ ● ■   |
| JVT 10S 271K | 270                     | ±10%      | 175                       | 225    | 455                      | 25     | 3500                                | 1.5                                | 0.4           | 49                 | ☆ ● ■   |
| JVT 10S 301K | 300                     | ±10%      | 195                       | 250    | 505                      | 25     | 3500                                | 1.5                                | 0.4           | 52                 | ☆ ● ■   |
| JVT 10S 331K | 330                     | ±10%      | 210                       | 275    | 550                      | 25     | 3500                                | 1.5                                | 0.4           | 58                 | ☆ ● ■   |
| JVT 10S 361K | 360                     | ±10%      | 230                       | 300    | 595                      | 25     | 3500                                | 1.5                                | 0.4           | 65                 | ☆ ● ■   |
| JVT 10S 391K | 390                     | ±10%      | 250                       | 320    | 650                      | 25     | 3500                                | 1.5                                | 0.4           | 70                 | ☆ ● ■   |
| JVT 10S 431K | 430                     | ±10%      | 275                       | 350    | 710                      | 25     | 3500                                | 1.5                                | 0.4           | 80                 | ☆ ● ■   |
| JVT 10S 471K | 470                     | ±10%      | 300                       | 385    | 775                      | 25     | 3500                                | 1.5                                | 0.4           | 85                 | ☆ ● ■   |
| JVT 10S 511K | 510                     | ±10%      | 320                       | 418    | 842                      | 25     | 3500                                | 1.5                                | 0.4           | 92                 | ☆ ● ■   |
| JVT 10S 561K | 560                     | ±10%      | 350                       | 460    | 920                      | 25     | 3500                                | 1.5                                | 0.4           | 102                | ☆ ● ■   |
| JVT 10S 621K | 620                     | ±10%      | 385                       | 505    | 1025                     | 25     | 3500                                | 1.5                                | 0.4           | 107                | ☆ ● ■   |
| JVT 10S 681K | 680                     | ±10%      | 420                       | 560    | 1120                     | 25     | 3500                                | 1.5                                | 0.4           | 112                | ☆ ● ■   |
| JVT 10S 751K | 750                     | ±10%      | 460                       | 615    | 1240                     | 25     | 3500                                | 1.5                                | 0.4           | 115                | ☆ ● ■   |
| JVT 10S 781K | 780                     | ±10%      | 485                       | 640    | 1290                     | 25     | 3500                                | 1.5                                | 0.4           | 116                | ☆ ● ■   |
| JVT 10S 821K | 820                     | ±10%      | 510                       | 670    | 1355                     | 25     | 3500                                | 1.5                                | 0.4           | 118                | ☆ ● ■   |
| JVT 10S 911K | 910                     | ±10%      | 550                       | 745    | 1500                     | 25     | 3500                                | 1.5                                | 0.4           | 127                | ☆ ● ■   |
| JVT 10S 102K | 1000                    | ±10%      | 625                       | 825    | 1650                     | 25     | 3500                                | 1.5                                | 0.4           | 140                | ☆ ● ■   |
| JVT 10S 112K | 1100                    | ±10%      | 680                       | 895    | 1815                     | 25     | 3500                                | 1.5                                | 0.4           | 155                | ☆ ● ■   |

Ø 14mm

## Rating and Characteristics

| Part No.     | Varistor Voltage at 1mA |           | Maximum Allowable Voltage |        | Maximum Clamping Voltage |        | Withstanding Surge Current (8/20us) | Nominal Discharge Current (8/20us) | Rated Wattage | Energy (10/1000us) | Certification   |
|--------------|-------------------------|-----------|---------------------------|--------|--------------------------|--------|-------------------------------------|------------------------------------|---------------|--------------------|---|
|              | DC (V)                  | Tolerance | AC rms (V)                | DC (V) | V@ ic (V)                | ic (A) | 1 Time (A)                          | In (KA)                            | (W)           | (J)                |  |
| JVT 14S 180M | 18                      | ±20%      | 11                        | 14     | 36                       | 10     | 2000                                | 1                                  | 0.1           | 5.2                | ☆ ○ □   |
| JVT 14S 220L | 22                      | ±15%      | 14                        | 18     | 43                       | 10     | 2000                                | 1                                  | 0.1           | 6.3                | ☆ ○ □   |
| JVT 14S 270K | 27                      | ±10%      | 17                        | 22     | 53                       | 10     | 2000                                | 1                                  | 0.1           | 7.8                | ☆ ○ □   |
| JVT 14S 330K | 33                      | ±10%      | 20                        | 26     | 65                       | 10     | 2000                                | 1                                  | 0.1           | 9.5                | ☆ ○ □   |
| JVT 14S 390K | 39                      | ±10%      | 25                        | 31     | 77                       | 10     | 2000                                | 1                                  | 0.1           | 11                 | ☆ ○ □   |
| JVT 14S 470K | 47                      | ±10%      | 30                        | 38     | 93                       | 10     | 2000                                | 1                                  | 0.1           | 14                 | ☆ ○ □   |
| JVT 14S 560K | 56                      | ±10%      | 35                        | 45     | 110                      | 10     | 2000                                | 1                                  | 0.1           | 16                 | ☆ ○ □   |
| JVT 14S 680K | 68                      | ±10%      | 40                        | 56     | 135                      | 10     | 2000                                | 1                                  | 0.1           | 20                 | ☆ ○ □   |
| JVT 14S 820K | 82                      | ±10%      | 50                        | 65     | 135                      | 50     | 6000                                | 3                                  | 0.6           | 28                 | ☆ ○ □   |
| JVT 14S 101K | 100                     | ±10%      | 60                        | 85     | 165                      | 50     | 6000                                | 3                                  | 0.6           | 36                 | ☆ ○ □   |
| JVT 14S 121K | 120                     | ±10%      | 75                        | 100    | 200                      | 50     | 6000                                | 3                                  | 0.6           | 44                 | ☆ ○ □   |
| JVT 14S 151K | 150                     | ±10%      | 95                        | 125    | 250                      | 50     | 6000                                | 3                                  | 0.6           | 53                 | ☆ ○ □   |
| JVT 14S 181K | 180                     | ±10%      | 115                       | 150    | 300                      | 50     | 6000                                | 3                                  | 0.6           | 65                 | ☆ ● □   |
| JVT 14S 201K | 200                     | ±10%      | 130                       | 170    | 340                      | 50     | 6000                                | 3                                  | 0.6           | 70                 | ☆ ● ■   |
| JVT 14S 221K | 220                     | ±10%      | 140                       | 180    | 360                      | 50     | 6000                                | 3                                  | 0.6           | 78                 | ☆ ● ■   |
| JVT 14S 241K | 240                     | ±10%      | 150                       | 200    | 395                      | 50     | 6000                                | 3                                  | 0.6           | 84                 | ☆ ● ■   |
| JVT 14S 271K | 270                     | ±10%      | 175                       | 225    | 455                      | 50     | 6000                                | 3                                  | 0.6           | 99                 | ☆ ● ■   |
| JVT 14S 301K | 300                     | ±10%      | 195                       | 250    | 505                      | 50     | 6000                                | 3                                  | 0.6           | 105                | ☆ ● ■   |
| JVT 14S 331K | 330                     | ±10%      | 210                       | 275    | 550                      | 50     | 6000                                | 3                                  | 0.6           | 115                | ☆ ● ■   |
| JVT 14S 361K | 360                     | ±10%      | 230                       | 300    | 595                      | 50     | 6000                                | 3                                  | 0.6           | 130                | ☆ ● ■   |
| JVT 14S 391K | 390                     | ±10%      | 250                       | 320    | 650                      | 50     | 6000                                | 3                                  | 0.6           | 140                | ☆ ● ■   |
| JVT 14S 431K | 430                     | ±10%      | 275                       | 350    | 710                      | 50     | 6000                                | 3                                  | 0.6           | 155                | ☆ ● ■   |
| JVT 14S 471K | 470                     | ±10%      | 300                       | 385    | 775                      | 50     | 6000                                | 3                                  | 0.6           | 175                | ☆ ● ■   |
| JVT 14S 511K | 510                     | ±10%      | 320                       | 418    | 842                      | 50     | 6000                                | 3                                  | 0.6           | 190                | ☆ ● ■   |
| JVT 14S 561K | 560                     | ±10%      | 350                       | 460    | 920                      | 50     | 6000                                | 3                                  | 0.6           | 205                | ☆ ● ■   |
| JVT 14S 621K | 620                     | ±10%      | 385                       | 505    | 1025                     | 50     | 6000                                | 3                                  | 0.6           | 215                | ☆ ● ■   |
| JVT 14S 681K | 680                     | ±10%      | 420                       | 560    | 1120                     | 50     | 6000                                | 3                                  | 0.6           | 225                | ☆ ● ■   |
| JVT 14S 751K | 750                     | ±10%      | 460                       | 615    | 1240                     | 50     | 6000                                | 3                                  | 0.6           | 230                | ☆ ● ■   |
| JVT 14S 781K | 780                     | ±10%      | 485                       | 640    | 1290                     | 50     | 6000                                | 3                                  | 0.6           | 233                | ☆ ● ■   |
| JVT 14S 821K | 820                     | ±10%      | 510                       | 670    | 1355                     | 50     | 6000                                | 3                                  | 0.6           | 235                | ☆ ● ■   |
| JVT 14S 911K | 910                     | ±10%      | 550                       | 745    | 1500                     | 50     | 6000                                | 3                                  | 0.6           | 255                | ☆ ● ■   |
| JVT 14S 102K | 1000                    | ±10%      | 625                       | 825    | 1650                     | 50     | 6000                                | 3                                  | 0.6           | 283                | ☆ ● ■   |
| JVT 14S 112K | 1100                    | ±10%      | 680                       | 895    | 1815                     | 50     | 6000                                | 3                                  | 0.6           | 310                | ☆ ● ■   |

Ø 20mm

## Rating and Characteristics

| Part No.     | Varistor Voltage at 1mA |           | Maximum Allowable Voltage |        | Maximum Clamping Voltage |        | Withstanding Surge Current (8/20us) | Nominal Discharge Current (8/20us) | Rated Wattage | Energy (10/1000us) | Certification |
|--------------|-------------------------|-----------|---------------------------|--------|--------------------------|--------|-------------------------------------|------------------------------------|---------------|--------------------|---------------|
|              | DC (V)                  | Tolerance | AC rms (V)                | DC (V) | V@ ic (V)                | ic (A) | 1 Time (A)                          | In (KA)                            | (W)           | (J)                |               |
| JVT 20S 220M | 22                      | ±20%      | 14                        | 18     | 43                       | 20     | 3000                                | 2                                  | 0.2           | 16                 | ☆ ○ □         |
| JVT 20S 270M | 27                      | ±20%      | 17                        | 22     | 53                       | 20     | 3000                                | 2                                  | 0.2           | 19                 | ☆ ○ □         |
| JVT 20S 330M | 33                      | ±20%      | 20                        | 26     | 65                       | 20     | 3000                                | 2                                  | 0.2           | 24                 | ☆ ○ □         |
| JVT 20S 390L | 39                      | ±15%      | 25                        | 31     | 77                       | 20     | 3000                                | 2                                  | 0.2           | 28                 | ☆ ○ □         |
| JVT 20S 470L | 47                      | ±15%      | 30                        | 38     | 93                       | 20     | 3000                                | 2                                  | 0.2           | 34                 | ☆ ○ □         |
| JVT 20S 560L | 56                      | ±15%      | 35                        | 45     | 110                      | 20     | 3000                                | 2                                  | 0.2           | 41                 | ☆ ○ □         |
| JVT 20S 680L | 68                      | ±15%      | 40                        | 56     | 135                      | 20     | 3000                                | 2                                  | 0.2           | 49                 | ☆ ○ □         |
| JVT 20S 820L | 82                      | ±15%      | 50                        | 65     | 135                      | 100    | 10000                               | 3                                  | 1             | 56                 | ☆ ○ □         |
| JVT 20S 101K | 100                     | ±10%      | 60                        | 85     | 165                      | 100    | 10000                               | 3                                  | 1             | 72                 | ☆ ○ □         |
| JVT 20S 121K | 120                     | ±10%      | 75                        | 100    | 200                      | 100    | 10000                               | 3                                  | 1             | 88                 | ☆ ○ □         |
| JVT 20S 151K | 150                     | ±10%      | 95                        | 125    | 250                      | 100    | 10000                               | 3                                  | 1             | 106                | ☆ ○ □         |
| JVT 20S 181K | 180                     | ±10%      | 115                       | 150    | 300                      | 100    | 10000                               | 3                                  | 1             | 130                | ☆ ● □         |
| JVT 20S 201K | 200                     | ±10%      | 130                       | 170    | 340                      | 100    | 10000                               | 3                                  | 1             | 140                | ☆ ● ■         |
| JVT 20S 221K | 220                     | ±10%      | 140                       | 180    | 360                      | 100    | 10000                               | 3                                  | 1             | 155                | ☆ ● ■         |
| JVT 20S 241K | 240                     | ±10%      | 150                       | 200    | 395                      | 100    | 10000                               | 3                                  | 1             | 168                | ☆ ● ■         |
| JVT 20S 271K | 270                     | ±10%      | 175                       | 225    | 455                      | 100    | 10000                               | 3                                  | 1             | 190                | ☆ ● ■         |
| JVT 20S 301K | 300                     | ±10%      | 195                       | 250    | 505                      | 100    | 10000                               | 3                                  | 1             | 210                | ☆ ● ■         |
| JVT 20S 331K | 330                     | ±10%      | 210                       | 275    | 550                      | 100    | 10000                               | 3                                  | 1             | 228                | ☆ ● ■         |
| JVT 20S 361K | 360                     | ±10%      | 230                       | 300    | 595                      | 100    | 10000                               | 3                                  | 1             | 255                | ☆ ● ■         |
| JVT 20S 391K | 390                     | ±10%      | 250                       | 320    | 650                      | 100    | 10000                               | 3                                  | 1             | 275                | ☆ ● ■         |
| JVT 20S 431K | 430                     | ±10%      | 275                       | 350    | 710                      | 100    | 10000                               | 3                                  | 1             | 303                | ☆ ● ■         |
| JVT 20S 471K | 470                     | ±10%      | 300                       | 385    | 775                      | 100    | 10000                               | 3                                  | 1             | 350                | ☆ ● ■         |
| JVT 20S 511K | 510                     | ±10%      | 320                       | 418    | 842                      | 100    | 10000                               | 3                                  | 1             | 382                | ☆ ● ■         |
| JVT 20S 561K | 560                     | ±10%      | 350                       | 460    | 920                      | 100    | 10000                               | 3                                  | 1             | 410                | ☆ ● ■         |
| JVT 20S 621K | 620                     | ±10%      | 385                       | 505    | 1025                     | 100    | 10000                               | 3                                  | 1             | 420                | ☆ ● ■         |
| JVT 20S 681K | 680                     | ±10%      | 420                       | 560    | 1120                     | 100    | 10000                               | 3                                  | 1             | 430                | ☆ ● ■         |
| JVT 20S 751K | 750                     | ±10%      | 460                       | 615    | 1240                     | 100    | 10000                               | 3                                  | 1             | 440                | ☆ ● ■         |
| JVT 20S 781K | 780                     | ±10%      | 485                       | 640    | 1290                     | 100    | 10000                               | 3                                  | 1             | 450                | ☆ ● ■         |
| JVT 20S 821K | 820                     | ±10%      | 510                       | 670    | 1355                     | 100    | 10000                               | 3                                  | 1             | 460                | ☆ ● ■         |
| JVT 20S 911K | 910                     | ±10%      | 550                       | 745    | 1500                     | 100    | 10000                               | 3                                  | 1             | 510                | ☆ ● ■         |
| JVT 20S 102K | 1000                    | ±10%      | 625                       | 825    | 1650                     | 100    | 10000                               | 3                                  | 1             | 566                | ☆ ● ■         |
| JVT 20S 112K | 1100                    | ±10%      | 680                       | 895    | 1815                     | 100    | 10000                               | 3                                  | 1             | 620                | ☆ ● ■         |


## Ultra Surge Series Specification

### Agency Approvals

| Agency           | UL                                  | CUL                                 | VDE                                       |   | CQC  |  |
|------------------|-------------------------------------|-------------------------------------|---|---|--|--|
| Agency Approvals | UL1449<br>4 <sup>th</sup> Edition   | CSA 22.2<br>No. 269.5-17            | IEC61051-1<br>IEC61051-2<br>IEC61051-2-2  | IEC61051-1<br>IEC61051-2<br>IEC61051-2-2<br>IEC62368-1:2018/G.8.1 | GB/T10193-1997<br>GB/T10194-1997           | GB4943.1-2011<br>GB/T10193-1997<br>GB/T10194-1997<br>GB8898-2011 |
| Title            | Transient Voltage Surge Suppressors | Transient Voltage Surge Suppressors | Varistors for use in electronic equipment |   | Engaged in Voluntary Product Certification |  |
| File No.         | VZCA2.E325508                       | VZCA8.E325508                       | 40046994                                  |   | CQC15001130699/0703/0700/1017              |  |
| Symbols          | ☆                                   |                                     | ○   | ●   | □  | ■  |


### Ø 7mm

### Rating and Characteristics

| Part No.     | Varistor Voltage at 1mA |           | Maximum Allowable Voltage |        | Maximum Clamping Voltage |        | Withstanding Surge Current (8/20us) | Nominal Discharge Current (8/20us) | Rated Wattage | Energy (10/1000us) | Certification   |
|--------------|-------------------------|-----------|---------------------------|--------|--------------------------|--------|-------------------------------------|------------------------------------|---------------|--------------------|---|
|              | DC (V)                  | Tolerance | AC rms (V)                | DC (V) | V@ ic (V)                | ic (A) | 1 Time (A)                          | In (KA)                            | (W)           | (J)                |  |
| JVT 07U 181K | 180                     | ±10%      | 115                       | 150    | 300                      | 10     | 1800                                | 1                                  | 0.25          | 19                 | ☆ ○ □   |
| JVT 07U 201K | 200                     | ±10%      | 130                       | 170    | 340                      | 10     | 1800                                | 1                                  | 0.25          | 21                 | ☆ ○ □   |
| JVT 07U 221K | 220                     | ±10%      | 140                       | 180    | 360                      | 10     | 1800                                | 1                                  | 0.25          | 23                 | ☆ ○ □   |
| JVT 07U 241K | 240                     | ±10%      | 150                       | 200    | 395                      | 10     | 1800                                | 1                                  | 0.25          | 25                 | ☆ ○ □   |
| JVT 07U 271K | 270                     | ±10%      | 175                       | 225    | 455                      | 10     | 1800                                | 1                                  | 0.25          | 28                 | ☆ ○ □   |
| JVT 07U 301K | 300                     | ±10%      | 195                       | 250    | 505                      | 10     | 1800                                | 1                                  | 0.25          | 32                 | ☆ ○ □   |
| JVT 07U 331K | 330                     | ±10%      | 210                       | 275    | 550                      | 10     | 1800                                | 1                                  | 0.25          | 34                 | ☆ ○ □   |
| JVT 07U 361K | 360                     | ±10%      | 230                       | 300    | 595                      | 10     | 1800                                | 1                                  | 0.25          | 37                 | ☆ ○ □   |
| JVT 07U 391K | 390                     | ±10%      | 250                       | 320    | 650                      | 10     | 1800                                | 1                                  | 0.25          | 40                 | ☆ ○ □   |
| JVT 07U 431K | 430                     | ±10%      | 275                       | 350    | 710                      | 10     | 1800                                | 1                                  | 0.25          | 46                 | ☆ ○ □   |
| JVT 07U 471K | 470                     | ±10%      | 300                       | 385    | 775                      | 10     | 1800                                | 1                                  | 0.25          | 49                 | ☆ ○ □   |
| JVT 07U 511K | 510                     | ±10%      | 320                       | 418    | 842                      | 10     | 1800                                | 1                                  | 0.25          | 54                 | ☆ ○ □   |
| JVT 07U 561K | 560                     | ±10%      | 350                       | 460    | 920                      | 10     | 1800                                | 1                                  | 0.25          | 55                 | ☆ ○ □   |
| JVT 07U 621K | 620                     | ±10%      | 385                       | 505    | 1025                     | 10     | 1800                                | 1                                  | 0.25          | 59                 | ☆ ○ □   |
| JVT 07U 681K | 680                     | ±10%      | 420                       | 560    | 1120                     | 10     | 1800                                | 1                                  | 0.25          | 62                 | ☆ ○ □   |
| JVT 07U 751K | 750                     | ±10%      | 460                       | 615    | 1240                     | 10     | 1800                                | 1                                  | 0.25          | 66                 | ☆ ○ □   |
| JVT 07U 781K | 780                     | ±10%      | 485                       | 640    | 1290                     | 10     | 1800                                | 1                                  | 0.25          | 68                 | ☆ ○ □   |
| JVT 07U 821K | 820                     | ±10%      | 510                       | 670    | 1355                     | 10     | 1800                                | 1                                  | 0.25          | 71                 | ☆ ○ □   |

Ø 10mm

## Rating and Characteristics

| Part No.     | Varistor Voltage at 1mA |           | Maximum Allowable Voltage |        | Maximum Clamping Voltage |        | Withstanding Surge Current (8/20us) | Nominal Discharge Current (8/20us) | Rated Wattage | Energy (10/1000us) | Certification   |
|--------------|-------------------------|-----------|---------------------------|--------|--------------------------|--------|-------------------------------------|------------------------------------|---------------|--------------------|---|
|              | DC (V)                  | Tolerance | AC rms (V)                | DC (V) | V@ ic (V)                | ic (A) | 1 Time (A)                          | In (KA)                            | (W)           | (J)                |  |
| JVT 10U 181K | 180                     | ±10%      | 115                       | 150    | 300                      | 25     | 4500                                | 2                                  | 0.4           | 47                 | ☆ ● □   |
| JVT 10U 201K | 200                     | ±10%      | 130                       | 170    | 340                      | 25     | 4500                                | 2                                  | 0.4           | 52                 | ☆ ● ■   |
| JVT 10U 221K | 220                     | ±10%      | 140                       | 180    | 360                      | 25     | 4500                                | 2                                  | 0.4           | 58                 | ☆ ● ■   |
| JVT 10U 241K | 240                     | ±10%      | 150                       | 200    | 395                      | 25     | 4500                                | 2                                  | 0.4           | 64                 | ☆ ● ■   |
| JVT 10U 271K | 270                     | ±10%      | 175                       | 225    | 455                      | 25     | 4500                                | 2                                  | 0.4           | 67                 | ☆ ● ■   |
| JVT 10U 301K | 300                     | ±10%      | 195                       | 250    | 505                      | 25     | 4500                                | 2                                  | 0.4           | 70                 | ☆ ● ■   |
| JVT 10U 331K | 330                     | ±10%      | 210                       | 275    | 550                      | 25     | 4500                                | 2                                  | 0.4           | 72                 | ☆ ● ■   |
| JVT 10U 361K | 360                     | ±10%      | 230                       | 300    | 595                      | 25     | 4500                                | 2                                  | 0.4           | 76                 | ☆ ● ■   |
| JVT 10U 391K | 390                     | ±10%      | 250                       | 320    | 650                      | 25     | 4500                                | 2                                  | 0.4           | 82                 | ☆ ● ■   |
| JVT 10U 431K | 430                     | ±10%      | 275                       | 350    | 710                      | 25     | 4500                                | 2                                  | 0.4           | 93                 | ☆ ● ■   |
| JVT 10U 471K | 470                     | ±10%      | 300                       | 385    | 775                      | 25     | 4500                                | 2                                  | 0.4           | 99                 | ☆ ● ■   |
| JVT 10U 511K | 510                     | ±10%      | 320                       | 418    | 842                      | 25     | 4500                                | 2                                  | 0.4           | 107                | ☆ ● ■   |
| JVT 10U 561K | 560                     | ±10%      | 350                       | 460    | 920                      | 25     | 4500                                | 2                                  | 0.4           | 113                | ☆ ● ■   |
| JVT 10U 621K | 620                     | ±10%      | 385                       | 505    | 1025                     | 25     | 4500                                | 2                                  | 0.4           | 125                | ☆ ● ■   |
| JVT 10U 681K | 680                     | ±10%      | 420                       | 560    | 1120                     | 25     | 4500                                | 2                                  | 0.4           | 128                | ☆ ● ■   |
| JVT 10U 751K | 750                     | ±10%      | 460                       | 615    | 1240                     | 25     | 4500                                | 2                                  | 0.4           | 134                | ☆ ● ■   |
| JVT 10U 781K | 780                     | ±10%      | 485                       | 640    | 1290                     | 25     | 4500                                | 2                                  | 0.4           | 139                | ☆ ● ■   |
| JVT 10U 821K | 820                     | ±10%      | 510                       | 670    | 1355                     | 25     | 4500                                | 2                                  | 0.4           | 146                | ☆ ● ■   |
| JVT 10U 911K | 910                     | ±10%      | 550                       | 745    | 1500                     | 25     | 4500                                | 2                                  | 0.4           | 152                | ☆ ● ■   |
| JVT 10U 102K | 1000                    | ±10%      | 625                       | 825    | 1650                     | 25     | 4500                                | 2                                  | 0.4           | 170                | ☆ ● ■   |
| JVT 10U 112K | 1100                    | ±10%      | 680                       | 895    | 1815                     | 25     | 4500                                | 2                                  | 0.4           | 180                | ☆ ● ■   |

Ø 14mm


## Rating and Characteristics

| Part No.     | Varistor Voltage at 1mA |           | Maximum Allowable Voltage |        | Maximum Clamping Voltage |        | Withstanding Surge Current (8/20us) | Nominal Discharge Current (8/20us) | Rated Wattage | Energy (10/1000us) | Certification |
|--------------|-------------------------|-----------|---------------------------|--------|--------------------------|--------|-------------------------------------|------------------------------------|---------------|--------------------|---------------|
|              | DC (V)                  | Tolerance | AC rms (V)                | DC (V) | V@ ic (V)                | ic (A) | 1 Time (A)                          | In (KA)                            | (W)           | (J)                |               |
| JVT 14U 181K | 180                     | ±10%      | 115                       | 150    | 300                      | 50     | 8000                                | 3                                  | 0.6           | 60                 | ☆ ● □         |
| JVT 14U 201K | 200                     | ±10%      | 130                       | 170    | 340                      | 50     | 8000                                | 3                                  | 0.6           | 82                 | ☆ ● ■         |
| JVT 14U 221K | 220                     | ±10%      | 140                       | 180    | 360                      | 50     | 8000                                | 3                                  | 0.6           | 90                 | ☆ ● ■         |
| JVT 14U 241K | 240                     | ±10%      | 150                       | 200    | 395                      | 50     | 8000                                | 3                                  | 0.6           | 98                 | ☆ ● ■         |
| JVT 14U 271K | 270                     | ±10%      | 175                       | 225    | 455                      | 50     | 8000                                | 3                                  | 0.6           | 116                | ☆ ● ■         |
| JVT 14U 301K | 300                     | ±10%      | 195                       | 250    | 505                      | 50     | 8000                                | 3                                  | 0.6           | 128                | ☆ ● ■         |
| JVT 14U 331K | 330                     | ±10%      | 210                       | 275    | 550                      | 50     | 8000                                | 3                                  | 0.6           | 140                | ☆ ● ■         |
| JVT 14U 361K | 360                     | ±10%      | 230                       | 300    | 595                      | 50     | 8000                                | 3                                  | 0.6           | 158                | ☆ ● ■         |
| JVT 14U 391K | 390                     | ±10%      | 250                       | 320    | 650                      | 50     | 8000                                | 3                                  | 0.6           | 170                | ☆ ● ■         |
| JVT 14U 431K | 430                     | ±10%      | 275                       | 350    | 710                      | 50     | 8000                                | 3                                  | 0.6           | 185                | ☆ ● ■         |
| JVT 14U 471K | 470                     | ±10%      | 300                       | 385    | 775                      | 50     | 8000                                | 3                                  | 0.6           | 205                | ☆ ● ■         |
| JVT 14U 511K | 510                     | ±10%      | 320                       | 418    | 842                      | 50     | 8000                                | 3                                  | 0.6           | 220                | ☆ ● ■         |
| JVT 14U 561K | 560                     | ±10%      | 350                       | 460    | 920                      | 50     | 8000                                | 3                                  | 0.6           | 240                | ☆ ● ■         |
| JVT 14U 621K | 620                     | ±10%      | 385                       | 505    | 1025                     | 50     | 8000                                | 3                                  | 0.6           | 250                | ☆ ● ■         |
| JVT 14U 681K | 680                     | ±10%      | 420                       | 560    | 1120                     | 50     | 8000                                | 3                                  | 0.6           | 260                | ☆ ● ■         |
| JVT 14U 751K | 750                     | ±10%      | 460                       | 615    | 1240                     | 50     | 8000                                | 3                                  | 0.6           | 270                | ☆ ● ■         |
| JVT 14U 781K | 780                     | ±10%      | 485                       | 640    | 1290                     | 50     | 8000                                | 3                                  | 0.6           | 274                | ☆ ● ■         |
| JVT 14U 821K | 820                     | ±10%      | 510                       | 670    | 1355                     | 50     | 8000                                | 3                                  | 0.6           | 280                | ☆ ● ■         |
| JVT 14U 911K | 910                     | ±10%      | 550                       | 745    | 1500                     | 50     | 8000                                | 3                                  | 0.6           | 295                | ☆ ● ■         |
| JVT 14U 102K | 1000                    | ±10%      | 625                       | 825    | 1650                     | 50     | 8000                                | 3                                  | 0.6           | 335                | ☆ ● ■         |
| JVT 14U 112K | 1100                    | ±10%      | 680                       | 895    | 1815                     | 50     | 8000                                | 3                                  | 0.6           | 360                | ☆ ● ■         |

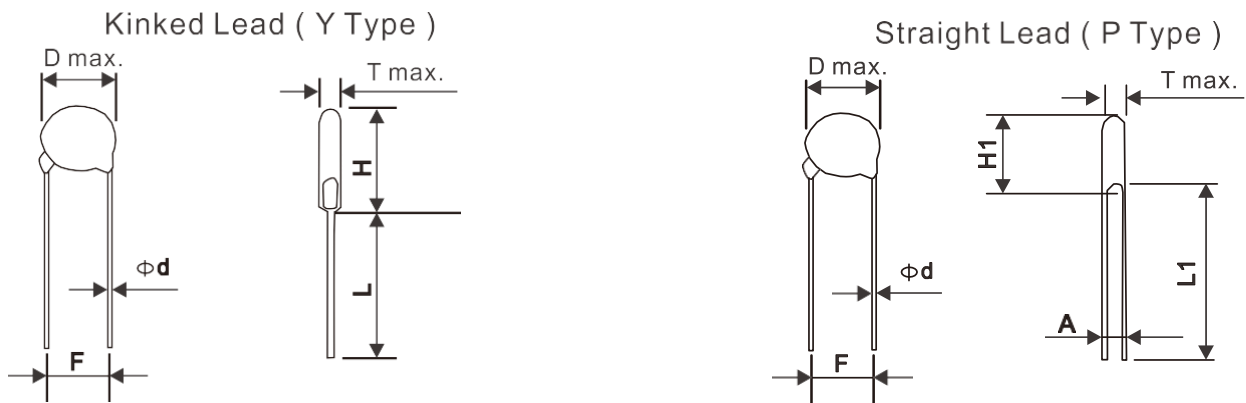


Ø 20mm

## Rating and Characteristics

| Part No.     | Varistor Voltage at 1mA |           | Maximum Allowable Voltage |        | Maximum Clamping Voltage |        | Withstanding Surge Current (8/20us) | Nominal Discharge Current (8/20us) | Rated Wattage | Energy (10/1000us) | Certification   |
|--------------|-------------------------|-----------|---------------------------|--------|--------------------------|--------|-------------------------------------|------------------------------------|---------------|--------------------|---|
|              | DC (V)                  | Tolerance | AC rms (V)                | DC (V) | V@ ic (V)                | ic (A) | 1 Time (A)                          | In (KA)                            | (W)           | (J)                |  |
| JVT 20U 181K | 180                     | ±10%      | 115                       | 150    | 300                      | 100    | 13000                               | 5                                  | 1             | 152                | ☆ ● □   |
| JVT 20U 201K | 200                     | ±10%      | 130                       | 170    | 340                      | 100    | 13000                               | 5                                  | 1             | 175                | ☆ ● ■   |
| JVT 20U 221K | 220                     | ±10%      | 140                       | 180    | 360                      | 100    | 13000                               | 5                                  | 1             | 185                | ☆ ● ■   |
| JVT 20U 241K | 240                     | ±10%      | 150                       | 200    | 395                      | 100    | 13000                               | 5                                  | 1             | 198                | ☆ ● ■   |
| JVT 20U 271K | 270                     | ±10%      | 175                       | 225    | 455                      | 100    | 13000                               | 5                                  | 1             | 220                | ☆ ● ■   |
| JVT 20U 301K | 300                     | ±10%      | 195                       | 250    | 505                      | 100    | 13000                               | 5                                  | 1             | 245                | ☆ ● ■   |
| JVT 20U 331K | 330                     | ±10%      | 210                       | 275    | 550                      | 100    | 13000                               | 5                                  | 1             | 268                | ☆ ● ■   |
| JVT 20U 361K | 360                     | ±10%      | 230                       | 300    | 595                      | 100    | 13000                               | 5                                  | 1             | 315                | ☆ ● ■   |
| JVT 20U 391K | 390                     | ±10%      | 250                       | 320    | 650                      | 100    | 13000                               | 5                                  | 1             | 350                | ☆ ● ■   |
| JVT 20U 431K | 430                     | ±10%      | 275                       | 350    | 710                      | 100    | 13000                               | 5                                  | 1             | 380                | ☆ ● ■   |
| JVT 20U 471K | 470                     | ±10%      | 300                       | 385    | 775                      | 100    | 13000                               | 5                                  | 1             | 405                | ☆ ● ■   |
| JVT 20U 511K | 510                     | ±10%      | 320                       | 418    | 842                      | 100    | 13000                               | 5                                  | 1             | 445                | ☆ ● ■   |
| JVT 20U 561K | 560                     | ±10%      | 350                       | 460    | 920                      | 100    | 13000                               | 5                                  | 1             | 475                | ☆ ● ■   |
| JVT 20U 621K | 620                     | ±10%      | 385                       | 505    | 1025                     | 100    | 13000                               | 5                                  | 1             | 490                | ☆ ● ■   |
| JVT 20U 681K | 680                     | ±10%      | 420                       | 560    | 1120                     | 100    | 13000                               | 5                                  | 1             | 500                | ☆ ● ■   |
| JVT 20U 751K | 750                     | ±10%      | 460                       | 615    | 1240                     | 100    | 13000                               | 5                                  | 1             | 525                | ☆ ● ■   |
| JVT 20U 781K | 780                     | ±10%      | 485                       | 640    | 1290                     | 100    | 13000                               | 5                                  | 1             | 530                | ☆ ● ■   |
| JVT 20U 821K | 820                     | ±10%      | 510                       | 670    | 1355                     | 100    | 13000                               | 5                                  | 1             | 545                | ☆ ● ■   |
| JVT 20U 911K | 910                     | ±10%      | 550                       | 745    | 1500                     | 100    | 13000                               | 5                                  | 1             | 595                | ☆ ● ■   |
| JVT 20U 102K | 1000                    | ±10%      | 625                       | 825    | 1650                     | 100    | 13000                               | 5                                  | 1             | 650                | ☆ ● ■   |
| JVT 20U 112K | 1100                    | ±10%      | 680                       | 895    | 1815                     | 100    | 13000                               | 5                                  | 1             | 720                | ☆ ● ■   |

## Dimensions



Dimension Table

unit : mm

| Diameter | 5mm  | 7mm  | 10mm   | 14mm   | 20mm   | 25mm |
|----------|------|------|--------|--------|--------|------|
| D max.   | 7.5  | 9.0  | 12.5   | 16.5   | 23     | 29   |
| d ± 0.05 | 0.6  | 0.6  | 0.8    | 0.8    | 1.0    | 1.0  |
| F ± 1.0  | 5.0  | 5.0  | 7.5    | 7.5    | 10.0   | 10.0 |
| H max.   | 11.0 | 12.5 | 17/*19 | 22/*23 | 28/*29 | 36   |
| L1 min.  | 25.0 | 25.0 | 25.0   | 25.0   | 25.0   | 20.0 |
| L min.   | 24.0 | 24.0 | 24.0   | 24.0   | 24.0   | 20.0 |

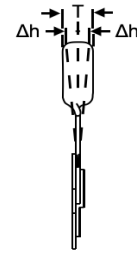
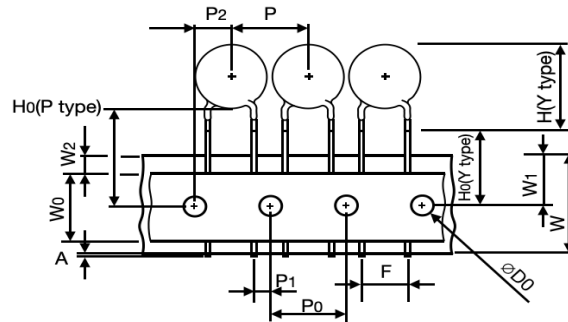
\*Just for 182K

Table of Tmax., A & H1 max.

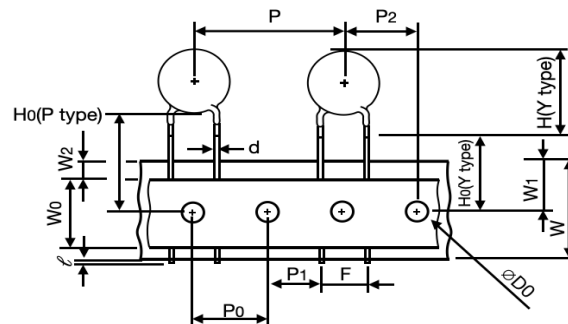
| Diameter | 5mm    |         |         | 7mm    |         |         | 10mm   |         |         | 14mm   |         |         | 20mm   |         |         | 25mm   |         |         |
|----------|--------|---------|---------|--------|---------|---------|--------|---------|---------|--------|---------|---------|--------|---------|---------|--------|---------|---------|
|          | T max. | A ± 0.8 | H1 max. | T max. | A ± 0.8 | H1 max. | T max. | A ± 0.8 | H1 max. | T max. | A ± 0.8 | H1 max. | T max. | A ± 0.8 | H1 max. | T max. | A ± 0.8 | H1 max. |
| Type No. |        |         |         |        |         |         |        |         |         |        |         |         |        |         |         |        |         |         |
| 180M     | 3.9    | 0.8     | 10.5    | 3.9    | 0.8     | 12.0    | 4.3    | 0.8     | 15.0    | 4.3    | 0.9     | 19.5    | /      | /       | /       | /      | /       | /       |
| 220M/L   | 4.1    | 0.9     | 10.5    | 4.1    | 0.9     | 12.0    | 4.5    | 0.9     | 15.0    | 4.5    | 1.0     | 19.5    | 4.9    | 1.0     | 26.5    | /      | /       | /       |
| 270M/K   | 4.3    | 0.9     | 10.5    | 4.3    | 0.9     | 12.0    | 4.7    | 0.9     | 15.0    | 4.7    | 1.0     | 19.5    | 5.1    | 1.1     | 26.5    | /      | /       | /       |
| 330M/K   | 4.5    | 1.0     | 10.5    | 4.5    | 1.0     | 12.0    | 4.9    | 1.0     | 15.0    | 4.9    | 1.2     | 19.5    | 5.3    | 1.2     | 26.5    | /      | /       | /       |
| 390L/K   | 4.5    | 1.2     | 10.5    | 4.5    | 1.2     | 12.0    | 5.1    | 1.2     | 15.0    | 5.1    | 1.4     | 19.5    | 5.4    | 1.4     | 26.5    | /      | /       | /       |
| 470L/K   | 4.8    | 1.2     | 10.5    | 4.8    | 1.2     | 12.0    | 5.3    | 1.2     | 15.0    | 5.4    | 1.4     | 19.5    | 5.6    | 1.4     | 26.5    | /      | /       | /       |
| 560L/K   | 4.8    | 1.4     | 10.5    | 4.8    | 1.4     | 12.0    | 5.5    | 1.4     | 15.0    | 5.6    | 1.6     | 19.5    | 5.6    | 1.6     | 26.5    | /      | /       | /       |
| 680L/K   | 5.1    | 1.7     | 10.5    | 5.1    | 1.7     | 12.0    | 5.7    | 1.6     | 15.0    | 5.6    | 1.9     | 19.5    | 5.9    | 1.9     | 26.5    | /      | /       | /       |
| 820K     | 3.8    | 0.8     | 10.5    | 3.8    | 0.8     | 12.0    | 4.3    | 0.8     | 15.0    | 4.3    | 1.0     | 19.5    | 4.7    | 1.1     | 26.5    | /      | /       | /       |
| 101K     | 3.9    | 0.8     | 10.5    | 3.9    | 0.8     | 12.0    | 4.4    | 0.8     | 15.0    | 4.5    | 1.0     | 19.5    | 4.9    | 1.2     | 26.5    | /      | /       | /       |
| 121K     | 4.1    | 0.9     | 10.5    | 4.1    | 0.9     | 12.0    | 4.5    | 0.9     | 15.0    | 4.6    | 1.1     | 19.5    | 5.1    | 1.3     | 26.5    | /      | /       | /       |
| 151K     | 4.5    | 1.2     | 10.5    | 4.5    | 1.2     | 12.0    | 4.9    | 1.2     | 15.0    | 5.0    | 1.4     | 19.5    | 5.4    | 1.6     | 26.5    | /      | /       | /       |
| 181K     | 3.9    | 1.0     | 10.5    | 3.9    | 1.0     | 12.0    | 4.3    | 1.0     | 15.0    | 4.3    | 1.2     | 19.5    | 5.0    | 1.4     | 26.5    | /      | /       | /       |
| 201K     | 4.0    | 1.0     | 10.5    | 4.0    | 1.0     | 12.0    | 4.4    | 1.0     | 15.0    | 4.4    | 1.2     | 19.5    | 5.1    | 1.4     | 26.5    | 5.4    | 2.5     | 35      |
| 221K     | 4.0    | 1.1     | 10.5    | 4.0    | 1.1     | 12.0    | 4.4    | 1.1     | 15.0    | 4.4    | 1.3     | 19.5    | 5.2    | 1.5     | 26.5    | 5.6    | 2.6     | 35      |
| 241K     | 4.2    | 1.1     | 10.5    | 4.2    | 1.3     | 12.0    | 4.6    | 1.3     | 15.0    | 4.6    | 1.5     | 19.5    | 5.3    | 1.7     | 26.5    | 5.7    | 2.8     | 35      |
| 271K     | 4.4    | 1.3     | 10.5    | 4.4    | 1.4     | 12.0    | 4.8    | 1.4     | 15.0    | 4.8    | 1.5     | 19.5    | 5.5    | 1.9     | 26.5    | 6.0    | 3.0     | 35      |
| 301K     | 4.4    | 1.3     | 10.5    | 4.4    | 1.5     | 12.0    | 4.8    | 1.6     | 15.0    | 4.8    | 1.7     | 19.5    | 5.7    | 2.1     | 26.5    | 6.3    | 3.2     | 35      |
| 331K     | 4.5    | 1.3     | 10.5    | 4.5    | 1.5     | 12.0    | 4.9    | 1.6     | 15.0    | 4.9    | 1.7     | 19.5    | 5.8    | 2.1     | 26.5    | 6.6    | 3.4     | 35      |
| 361K     | 4.7    | 1.8     | 10.5    | 4.6    | 1.9     | 12.0    | 5.0    | 1.9     | 15.0    | 5.0    | 2.1     | 19.5    | 6.0    | 2.3     | 26.5    | 6.8    | 3.6     | 35      |
| 391K     | 4.8    | 2.0     | 11.0    | 4.8    | 2.0     | 12.5    | 5.2    | 2.2     | 15.0    | 5.2    | 2.2     | 19.5    | 6.2    | 2.4     | 26.5    | 7.1    | 3.9     | 35      |
| 431K     | 5.1    | 2.1     | 11.0    | 5.1    | 2.0     | 12.5    | 5.5    | 2.5     | 15.0    | 5.5    | 2.5     | 19.5    | 6.6    | 2.7     | 26.5    | 7.2    | 3.3     | 35      |
| 471K     | 5.2    | 2.2     | 11.0    | 5.2    | 2.3     | 12.5    | 5.6    | 2.6     | 15.0    | 5.6    | 2.7     | 19.5    | 6.8    | 2.9     | 27.0    | 7.4    | 3.5     | 35      |
| 511K     | 5.6    | 2.5     | 11.5    | 5.6    | 2.5     | 12.5    | 5.8    | 3.1     | 15.0    | 5.8    | 3.1     | 20.0    | 7.0    | 3.3     | 27.0    | 7.6    | 3.8     | 35      |
| 561K     | 5.7    | 2.8     | 11.5    | 5.7    | 2.8     | 12.5    | 6.1    | 3.4     | 15.0    | 6.1    | 3.4     | 20.0    | 7.3    | 3.6     | 27.0    | 7.9    | 4.0     | 35      |
| 621K     | 6.0    | 3.1     | 11.5    | 6.0    | 3.1     | 12.5    | 6.4    | 4.0     | 15.0    | 6.4    | 3.8     | 20.0    | 7.6    | 4.1     | 27.0    | 8.2    | 4.4     | 35      |
| 681K     | 6.3    | 3.4     | 11.5    | 6.3    | 3.4     | 12.5    | 6.8    | 4.4     | 15.0    | 6.8    | 4.1     | 20.0    | 8.0    | 4.4     | 27.0    | 8.3    | 4.7     | 35      |
| 751K     | 6.7    | 3.7     | 11.5    | 6.8    | 3.7     | 12.5    | 7.2    | 4.4     | 15.0    | 7.2    | 4.3     | 20.0    | 8.4    | 4.5     | 27.0    | 8.7    | 5.0     | 35      |
| 781K     | /      | /       | /       | 7.0    | 3.9     | 12.5    | 7.3    | 4.6     | 15.0    | 7.3    | 4.6     | 20.0    | 8.6    | 4.8     | 27.0    | 8.9    | 5.2     | 35      |
| 821K     | /      | /       | /       | 7.2    | 4.1     | 12.5    | 7.6    | 4.6     | 15.0    | 7.6    | 4.6     | 20.0    | 8.8    | 4.8     | 27.0    | 9.1    | 5.4     | 35      |
| 911K     | /      | /       | /       | /      | /       | /       | 8.2    | 5.4     | 16.0    | 8.2    | 5.4     | 20.5    | 9.3    | 5.7     | 27.0    | 9.6    | 5.9     | 35      |
| 102K     | /      | /       | /       | /      | /       | /       | 8.5    | 5.4     | 16.0    | 8.6    | 5.6     | 20.5    | 9.9    | 5.8     | 27.0    | /      | /       | /       |
| 112K     | /      | /       | /       | /      | /       | /       | 9.1    | 5.7     | 16.0    | 9.1    | 6.1     | 20.5    | 10.3   | 6.3     | 27.0    | /      | /       | /       |
| 122K     | /      | /       | /       | /      | /       | /       | 9.9    | 6.3     | 17.0    | 10.0   | 6.7     | 21.0    | 11.3   | 6.9     | 27.5    | /      | /       | /       |
| 142K     | /      | /       | /       | /      | /       | /       | 10.7   | 7.4     | 17.5    | 10.9   | 7.8     | 21.5    | 12.8   | 8.0     | 28.0    | /      | /       | /       |
| 162K     | /      | /       | /       | /      | /       | /       | 11.5   | 8.6     | 17.5    | 11.8   | 9.0     | 21.5    | 13.0   | 9.2     | 28.5    | /      | /       | /       |
| 182K     | /      | /       | /       | /      | /       | /       | 12.6   | 9.8     | 17.5    | 12.8   | 10.2    | 21.5    | 13.5   | 10.4    | 29.0    | /      | /       | /       |

## Tape and Reel Dimensions

1/2" pitch



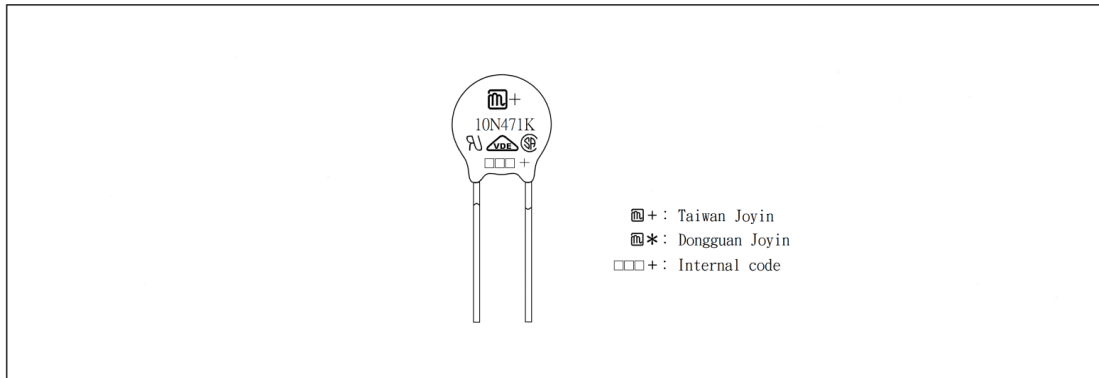
1.0" pitch



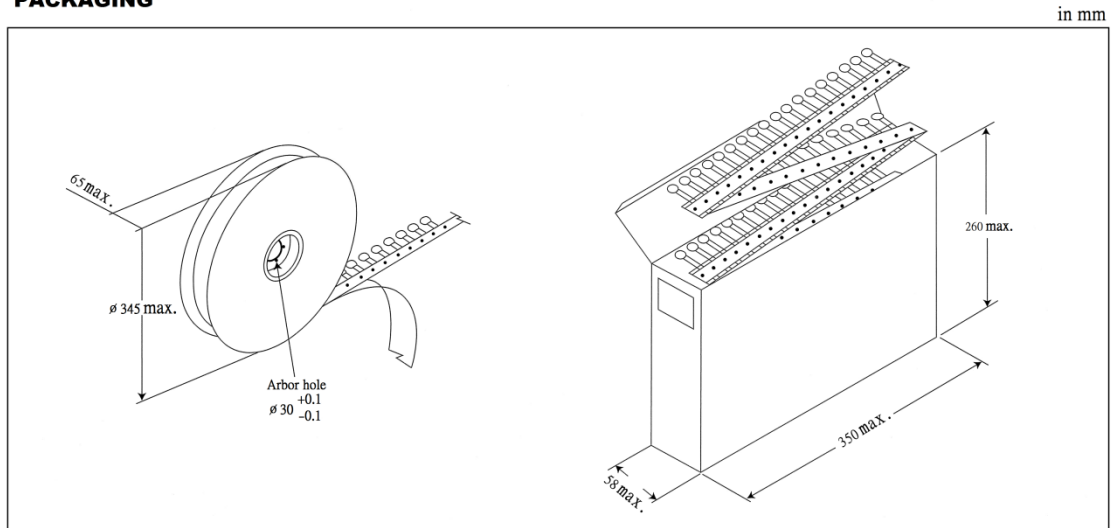
| Symbols    | Item                                   | 5 / 7 mm                                | 10 / 14 mm                              | 20mm          |
|------------|--|---|---|---------------|
| A          | Cut out length                         | 1.1 mm max.                             | 1.1 mm max.                             |               |
| H (Y type) | Height of Top                          | See H max. table                        |   |               |
| H0(Y type) | Height to seating plane                | 16.0 ± 0.5 mm (*± 1.0 mm)               | 16.0 ± 0.5 mm (*± 1.0 mm)               |               |
| H0(P type) | Height of component from hole center   | 16.0 ~ 21.0 mm                          | 16.0 ~ 21.0 mm                          |               |
| Δh         | Front to back deviation                | 0 ± 2.0 mm                              | 0 ± 2.0 mm                              |               |
| W          | Carrier tape width                     | 18 <sup>+1.0</sup> <sub>-0.5</sub> mm   | 18 <sup>+1.0</sup> <sub>-0.5</sub> mm   |               |
| W0         | Hold down tape width                   | 10.0 mm                                 | 12.0 mm                                 |               |
| W1         | Sprocket hole position                 | 9.0 <sup>+0.75</sup> <sub>-0.5</sub> mm | 9.0 <sup>+0.75</sup> <sub>-0.5</sub> mm |               |
| W2         | Adhesive tape position                 | 3.0 mm max.                             | 3.0 mm max.                             |               |
| F          | Component lead spacing                 | 5.0 ± 1.0 mm                            | 7.5 ± 1.0 mm                            | 10.0 ± 1.0 mm |
| P          | Pitch of component                     | 12.7 ± 1.0 mm                           | 25.4 ± 1.0 mm                           |               |
| P0         | Sprocket hole pitch                    | 12.7 ± 0.3 mm                           | 12.7 ± 0.3 mm                           |               |
| P1         | Lead length from hole center to lead   | 3.85 ± 0.7 mm                           | 8.95 ± 0.7 mm                           | 7.7 ± 0.7 mm  |
| P2         | Length from hole center to disk center | 6.35 ± 1.3 mm                           | 12.7 ± 1.3 mm                           |               |
| D0         | Sprocket hole diameter                 | 4.0 ± 0.2 mm                            | 4.0 ± 0.2 mm                            |               |
| d          | Lead wire diameter                     | 0.6 ± 0.05 mm                           | 0.8 ± 0.05 mm                           | 1.0 ± 0.05 mm |
| T          | Disk thickness                         | See T max. table                        | See T max. table                        |               |
| t1         | Total thickness tape                   | 0.7 ± 0.05 mm                           | 0.7 ± 0.05 mm                           |               |
| t2         | Total thickness                        | 1.6 mm max.                             | 1.8 mm max.                             |               |

## Marking and Packaging

### MARKING



### PACKAGING



| Series<br>Part No. | 5mm        |      |      | 7mm        |      |      | 10mm       |      |      | 14mm       |      |      | 20mm       |      |      | 25mm       |
|--------------------|------------|------|------|------------|------|------|------------|------|------|------------|------|------|------------|------|------|------------|
|                    | Bulk (Box) | Reel | Ammo | Bulk (Box) | Reel | Ammo | Bulk (Box) | Reel | Ammo | Bulk (Box) | Reel | Ammo | Bulk (Box) | Reel | Ammo | Bulk (Box) |
| 180M ~ 470K        | 5000       | 1500 | 1500 | 5000       | 1500 | 1500 | 2500       | 1000 | 500  | 1500       | 750  | 500  | 750        | 500  | 500  | -          |
| 560K ~ 680K        | 5000       | 1500 | 1000 | 5000       | 1500 | 1000 | 2500       | 1000 | 500  | 1500       | 750  | 500  | 750        | 500  | 500  | -          |
| 820K ~ 391K        | 5000       | 1500 | 1500 | 5000       | 1500 | 1500 | 2500       | 1000 | 500  | 1500       | 750  | 500  | 750        | 500  | 500  | 750        |
| 431K ~ 471K        | 5000       | 1500 | 1000 | 5000       | 1000 | 1000 | 2000       | 750  | 500  | 1500       | 750  | 500  | 750        | 500  | 500  | 750        |
| 511K ~ 821K        | 4000       | 1000 | 1000 | 4000       | 1000 | 1000 | 1500       | 500  | 500  | 750        | 500  | 500  | 450        | 500  | 500  | 450        |
| 911K ~ 122K        | -          | -    | -    | -          | -    | -    | 1500       | 500  | 350  | 750        | 500  | 350  | 450        | -    | -    | 450        |
| 142K ~ 182K        | -          | -    | -    | -          | -    | -    | 750        | -    | -    | 450        | -    | -    | 300        | -    | -    | -          |

| Packaging             | Bulk (Box)      | Reel                    | Reel<br>(14 mm, 20 mm) | Ammo<br>(5 mm, 7 mm) | Ammo<br>(10 mm, 14 mm) | Ammo<br>(20 mm) |
|-----------------------|-----------------|-------------------------|------------------------|----------------------|------------------------|-----------------|
| Box size ( mm )       | 290 × 155 × 110 | 350 × 350 × 105         | 346 × 346 × 72         | 335 × 245 × 43       | 347 × 246 × 50         | 348 × 255 × 60  |
| Carton size<br>( mm ) | 328 × 310 × 250 | 370 × 370 × 590         | 370 × 370 × 468        | 515 × 354 × 258      | 515 × 364 × 246        | 535 × 365 × 275 |
| One carton with       | 4 Boxes         | 5 Boxes<br>( 10 reels ) | 6 Boxes<br>( 6 reels ) | 10 Boxes             | 8 Boxes                | 8 Boxes         |