

SPECIFICATION FOR APPROVAL

202602094A

Products Name **NTC POWER Thermistor**

CUSTOMER

JOYIN P/N

JNR 系列

Model No

ISSUE DATE

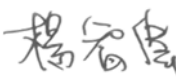
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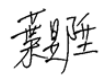
REVISION DATE

REFERENCE NO.

DRAWN BY 石敏

CHECKED BY 

QA 

APPROVED BY 

CUSTOMER RESPONSE

- ☐ Approval
☐ Approval with the following change
☐ Reject with the following reasons

CUSTOMER SIGNATURE

DATE

- ☐ HEAD OFFICE & Taiwan Factory : **JOYIN CO., LTD.**
No.160, Ln. 623, Shenshen Rd., Yangmei Dist., Taoyuan City Taiwan 32651
TEL:886-3-475-5094 FAX:886-3-475-6835 Http://www.joyin.com.tw
- ☐ DONGGUAN Factory : **DONGGUAN JOYIN ELECTRONICS CO., LTD.**
No. 9, Jiang Jun Road, Huan Bo, Zhou Xi, Nan Cheng District, Dongguan,
Guangdong Province, China 523078
TEL:86-769-2240-2759 FAX:86-769-2240-4831



Features

1. RoHS / Halogen-Free (HF) compliant
2. Body size: Ø5mm ~ Ø25mm
3. Highly stable electrical characteristics
4. Coating material flame retardant to UL94V-0
5. Wide resistance range
6. Agency recognition: UL / TUV / CQC

Applications

1. Home appliances
2. Office automation
3. Switch mode power supplies
4. Adapters
5. Lighting driver

How to order

Part Number Code														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
J	N	R	1	0	S	1	0	0	L	8	7	P	U	0
①			②		③	④			⑤	⑥	⑦	⑧	⑨	

①	Product Type	JNR series	④	Resistance @25°C (R25)	2R5 = 2.5Ω 050 = 5Ω 100 = 10Ω 101 = 100Ω	⑦	Lead Spacing	5 = 5mm 7 = 7.5mm 1 = 10mm
②	Body Size	05 = 5mm 08 = 8mm 10 = 10mm 15 = 15mm 20 = 20mm 25 = 25mm	⑤	Tolerance of R25	L = ±15% M = ±20%	⑧	Lead Style	P = Straight Lead Y = Vertical Kink Lead I = Inside Kink Lead E = Outside Kink Lead G = Winder Kink Lead
③	Series	S = Power NTC thermistor for Inrush Current Limiting (ICL)	⑥	Lead Diameter	6/P = 0.6mm 8/Q = 0.8mm 1/N = 1.0mm	⑨	Packaging	50 = L:5.0±1mm for Straight Lead or L1:5.0±0.5mm for Kink Lead U0 = L1:20mm for Bulk & Kink Lead U0 = L:20mm for Bulk & Straight Lead AW = H0:16mm for Ammo RY = H0:20mm for Tape/Reel

Safety Certification

Standard NO	UL / CUL	TUV	CQC
	UL1434	EN 60539-1:2023	GB/T6663.1-2007
File NO	E171531	R 50236285	CQC10001050816

Electrical Characteristics

Part No	Resistance at 25°C	I _{max}	R _I max	Maximum Load Cap. AC240V	P _{max} typical	Dissipation factor typical	Thermal time constant typical	Rated temperature	Safety	Approvals
	(Ohms)	(Amps)	(Ω)	(μF)	(W)	δ(mW/°C)	(sec.)	T _L ~ T _U °C		
JNR05S030□	3.0	3.0	0.220	100	1.6	Approx. 13	Approx. 25	-40 ~ +150	■	■
JNR05S040□	4.0	2.0	0.350	100	1.6	Approx. 13	Approx. 25	-40 ~ +150	■	■
JNR05S050□	5.0	2.0	0.417	100	1.6	Approx. 13	Approx. 25	-40 ~ +150	■	■
JNR05S05A□	5.0	3.0	0.200	100	1.6	Approx. 13	Approx. 25	-40 ~ +150	■	■
JNR05S070□	7.0	1.2	0.554	100	1.6	Approx. 13	Approx. 25	-40 ~ +150	■	■
JNR05S080□	8.0	1.0	0.911	68	1.6	Approx. 13	Approx. 25	-40 ~ +150	■	■
JNR05S08A□	8.0	2.0	0.420	68	1.6	Approx. 13	Approx. 25	-40 ~ +150	■	■
JNR05S100□	10	1.0	1.129	100	1.6	Approx. 13	Approx. 25	-40 ~ +150	■	■
JNR05S10A□	10	2.0	0.675	100	1.6	Approx. 13	Approx. 25	-40 ~ +150	■	■
JNR05S120□	12	1.0	1.188	68	1.6	Approx. 13	Approx. 25	-40 ~ +150	■	■
JNR05S200□	20	0.3	5.600	100	1.6	Approx. 13	Approx. 25	-40 ~ +150	■	■
JNR05S20A□	20	1.0	2.000	100	1.6	Approx. 13	Approx. 25	-40 ~ +150	■	■
JNR08S2R5□	2.5	4.0	0.103	100	2.0	Approx. 14	Approx. 33	-40 ~ +170	■	■
JNR08S030□	3.0	3.0	0.220	100	2.0	Approx. 14	Approx. 33	-40 ~ +170	■	■
JNR08S040□	4.0	2.0	0.428	220	2.0	Approx. 14	Approx. 33	-40 ~ +170	■	■
JNR08S4R7□	4.7	3.0	0.224	220	2.0	Approx. 14	Approx. 33	-40 ~ +170	■	■
JNR08S050□	5.0	3.0	0.238	220	2.0	Approx. 14	Approx. 33	-40 ~ +170	■	■
JNR08S060□	6.0	3.0	0.284	220	2.0	Approx. 14	Approx. 33	-40 ~ +170	■	■
JNR08S070□	7.0	3.0	0.285	220	2.0	Approx. 14	Approx. 33	-40 ~ +170	■	■
JNR08S080□	8.0	3.0	0.224	220	2.0	Approx. 14	Approx. 33	-40 ~ +170	■	■
JNR08S100□	10	3.0	0.280	220	2.0	Approx. 14	Approx. 33	-40 ~ +170	■	■
JNR08S150□	15	2.0	0.567	100	2.0	Approx. 14	Approx. 33	-40 ~ +170	■	■
JNR08S180□	18	2.0	0.680	100	2.0	Approx. 14	Approx. 33	-40 ~ +170	■	■
JNR08S200□	20	1.0	1.157	100	2.0	Approx. 14	Approx. 33	-40 ~ +170	■	■
JNR08S220□	22	1.0	1.279	100	2.0	Approx. 14	Approx. 33	-40 ~ +170	■	■
JNR08S300□	30	0.5	4.087	100	2.0	Approx. 14	Approx. 33	-40 ~ +170	■	■

Note : □ = Tolerance of R25 (L = ±15% , M = ±20%)

Part No	Resistance at 25°C	I _{max}	R _I max	Maximum Load Cap. AC240V	P _{max} typical	Dissipation factor typical	Thermal time constant typical	Rated temperature	Safety	Approvals
	(Ohms)	(Amps)	(Ω)	(μF)	(W)	δ(mW/°C)	(sec.)	T _L ~ T _U °C		 
JNR10S1R0□	1.0	5.0	0.081	470	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S1R3□	1.3	5.0	0.083	330	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S1R5□	1.5	5.0	0.096	330	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S2R0□	2.0	5.0	0.107	180	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S2R5□	2.5	5.0	0.118	330	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S030□	3.0	5.0	0.127	560	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S040□	4.0	4.0	0.160	560	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S050□	5.0	4.0	0.176	470	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S060□	6.0	3.0	0.234	330	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S6R8□	6.8	3.0	0.265	330	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S070□	7.0	3.0	0.273	330	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S080□	8.0	3.0	0.287	330	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S100□	10	3.0	0.303	330	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S120□	12	3.0	0.318	330	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S130□	13	3.0	0.345	330	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S150□	15	2.5	0.407	330	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S160□	16	2.5	0.410	330	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S200□	20	2.0	0.576	330	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S220□	22	2.0	0.586	220	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S250□	25	2.0	0.595	330	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S300□	30	2.0	0.714	330	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S470□	47	2.0	0.795	330	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S500□	50	2.0	0.801	330	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S800□	80	1.0	2.217	390	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S101□	100	1.0	2.275	220	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■
JNR10S121□	120	1.0	2.693	390	2.3	Approx. 16	Approx. 40	-40 ~ +170	■	■ ■

Note : □ = Tolerance of R25 (L = ±15% , M = ±20%)

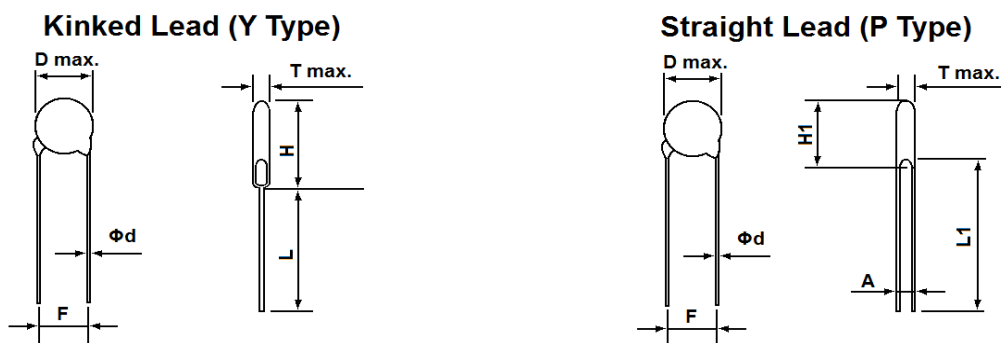
Part No	Resistance at 25°C	I _{max}	R _I max	Maximum Load Cap. AC240V	P _{max} typical	Dissipation factor typical	Thermal time constant typical	Rated temperature	Safety	Approvals
	(Ohms)	(Amps)	(Ω)	(μF)	(W)	δ(mW/°C)	(sec.)	T _L ~ T _U °C		 
JNR13S1R0□	1.0	7.0	0.042	470	3.2	Approx. 18	Approx. 60	-40 ~ +200	■	■ ■
JNR13S1R3□	1.3	7.0	0.067	470	3.2	Approx. 18	Approx. 60	-40 ~ +200	■	■ ■
JNR13S2R0□	2.0	5.0	0.090	470	3.2	Approx. 18	Approx. 60	-40 ~ +200	■	■ ■
JNR13S2R5□	2.5	6.0	0.096	560	3.2	Approx. 18	Approx. 60	-40 ~ +200	■	■ ■
JNR13S030□	3.0	6.0	0.104	560	3.2	Approx. 18	Approx. 60	-40 ~ +200	■	■ ■
JNR13S040□	4.0	5.0	0.124	560	3.2	Approx. 18	Approx. 60	-40 ~ +200	■	■ ■
JNR13S4R7□	4.7	5.0	0.146	560	3.2	Approx. 18	Approx. 60	-40 ~ +200	■	■ ■
JNR13S050□	5.0	5.0	0.155	560	3.2	Approx. 18	Approx. 60	-40 ~ +200	■	■ ■
JNR13S060□	6.0	5.0	0.180	680	3.2	Approx. 18	Approx. 60	-40 ~ +200	■	■ ■
JNR13S070□	7.0	4.0	0.184	470	3.2	Approx. 18	Approx. 60	-40 ~ +200	■	■ ■
JNR13S080□	8.0	4.0	0.206	470	3.2	Approx. 18	Approx. 60	-40 ~ +200	■	■ ■
JNR13S100□	10	5.0	0.129	470	3.2	Approx. 18	Approx. 60	-40 ~ +200	■	■ ■
JNR13S120□	12	4.0	0.210	560	3.2	Approx. 18	Approx. 60	-40 ~ +200	■	■ ■
JNR13S150□	15	3.0	0.317	560	3.2	Approx. 18	Approx. 60	-40 ~ +200	■	■ ■
JNR13S160□	16	3.0	0.338	560	3.2	Approx. 18	Approx. 60	-40 ~ +200	■	■ ■
JNR13S180□	18	3.0	0.360	560	3.2	Approx. 18	Approx. 60	-40 ~ +200	■	■ ■
JNR13S200□	20	2.8	0.400	470	3.2	Approx. 18	Approx. 60	-40 ~ +200	■	■ ■
JNR13S250□	25	2.0	0.763	560	3.2	Approx. 18	Approx. 60	-40 ~ +200	■	■ ■
JNR13S500□	50	2.0	0.636	560	3.2	Approx. 18	Approx. 60	-40 ~ +200	■	■ ■
JNR15S0R7□	0.7	8.0	0.027	470	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S1R0□	1.0	8.0	0.038	470	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S1R3□	1.3	8.0	0.054	470	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S1R5□	1.5	8.0	0.058	470	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S2R0□	2.0	8.0	0.077	470	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S2R5□	2.5	8.0	0.074	470	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S030□	3.0	7.0	0.095	470	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S040□	4.0	6.0	0.106	470	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S4R7□	4.7	6.0	0.108	470	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S050□	5.0	6.0	0.111	470	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S060□	6.0	6.0	0.117	680	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S070□	7.0	6.0	0.122	680	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S080□	8.0	6.0	0.126	680	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S100□	10	5.0	0.194	680	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S120□	12	5.0	0.202	680	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S150□	15	4.0	0.231	680	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S160□	16	4.0	0.252	680	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S180□	18	4.0	0.267	680	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S200□	20	4.0	0.285	680	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S220□	22	4.0	0.317	560	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S250□	25	3.0	0.415	680	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S300□	30	3.0	0.449	680	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S330□	33	3.0	0.452	820	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S400□	40	3.0	0.500	1000	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S470□	47	3.0	0.524	1000	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S800□	80	2.5	0.699	680	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S121□	120	2.0	1.042	1000	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■
JNR15S221□	220	1.0	3.455	1500	3.7	Approx. 21	Approx. 80	-40 ~ +200	■	■ ■

Note : □ = Tolerance of R25 (L = ±15% , M = ±20%)

Part No	Resistance at 25°C	I _{max}	R _I max	Maximum Load Cap. AC240V	P _{max} typical	Dissipation factor typical	Thermal time constant typical	Rated temperature	Safety	Approvals	
	(Ohms)	(Amps)	(Ω)	(μF)	(W)	δ(mW/°C)	(sec.)	T _L ~ T _U °C			
JNR20S0R7□	0.7	13.0	0.029	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S1R0□	1.0	13.0	0.037	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S1R3□	1.3	10.0	0.042	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S1R5□	1.5	10.5	0.042	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S2R0□	2.0	10.0	0.059	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S2R2□	2.2	9.5	0.066	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S2R5□	2.5	9.0	0.083	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S030□	3.0	8.5	0.076	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S040□	4.0	8.0	0.076	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S4R7□	4.7	7.5	0.116	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S050□	5.0	7.5	0.118	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S060□	6.0	7.0	0.120	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S6R8□	6.8	6.5	0.122	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S070□	7.0	6.5	0.124	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S080□	8.0	6.0	0.128	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S100□	10	6.0	0.135	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S120□	12	5.0	0.165	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S130□	13	5.0	0.179	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S150□	15	4.5	0.255	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S160□	16	4.5	0.263	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S180□	18	4.0	0.278	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S200□	20	4.0	0.308	1000	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR20S121□	120	2.0	1.075	1500	4.9	Approx. 28	Approx. 110	-40 ~ +200	■	■	■
JNR25S1R0□	1.0	15.0	0.034	1200	7.0	Approx. 30	Approx. 130	-40 ~ +200	■	■	■
JNR25S1R5□	1.5	15.0	0.035	1200	7.0	Approx. 30	Approx. 130	-40 ~ +200	■	■	■
JNR25S2R0□	2.0	14.5	0.036	1200	7.0	Approx. 30	Approx. 130	-40 ~ +200	■	■	■
JNR25S2R5□	2.5	14.5	0.037	1200	7.0	Approx. 30	Approx. 130	-40 ~ +200	■	■	■
JNR25S030□	3.0	14.5	0.038	1200	7.0	Approx. 30	Approx. 130	-40 ~ +200	■	■	■
JNR25S040□	4.0	14.0	0.039	1200	7.0	Approx. 30	Approx. 130	-40 ~ +200	■	■	■
JNR25S4R7□	4.7	13.0	0.040	1200	7.0	Approx. 30	Approx. 130	-40 ~ +200	■	■	■
JNR25S050□	5.0	11.0	0.066	1200	7.0	Approx. 30	Approx. 130	-40 ~ +200	■	■	■
JNR25S6R8□	6.8	10.5	0.070	1200	7.0	Approx. 30	Approx. 130	-40 ~ +200	■	■	■
JNR25S070□	7.0	10.0	0.091	1200	7.0	Approx. 30	Approx. 130	-40 ~ +200	■	■	■
JNR25S080□	8.0	9.0	0.096	1200	7.0	Approx. 30	Approx. 130	-40 ~ +200	■	■	■
JNR25S100□	10	8.0	0.143	1200	7.0	Approx. 30	Approx. 130	-40 ~ +200	■	■	■
JNR25S120□	12	7.5	0.165	1200	7.0	Approx. 30	Approx. 130	-40 ~ +200	■	■	■
JNR25S150□	15	6.5	0.223	1200	7.0	Approx. 30	Approx. 130	-40 ~ +200	■	■	■
JNR25S180□	18	5.5	0.234	1200	7.0	Approx. 30	Approx. 130	-40 ~ +200	■	■	■
JNR25S200□	20	5.0	0.245	1200	7.0	Approx. 30	Approx. 130	-40 ~ +200	■	■	■

Note : □ = Tolerance of R25 (L = ±15% , M = ±20%)

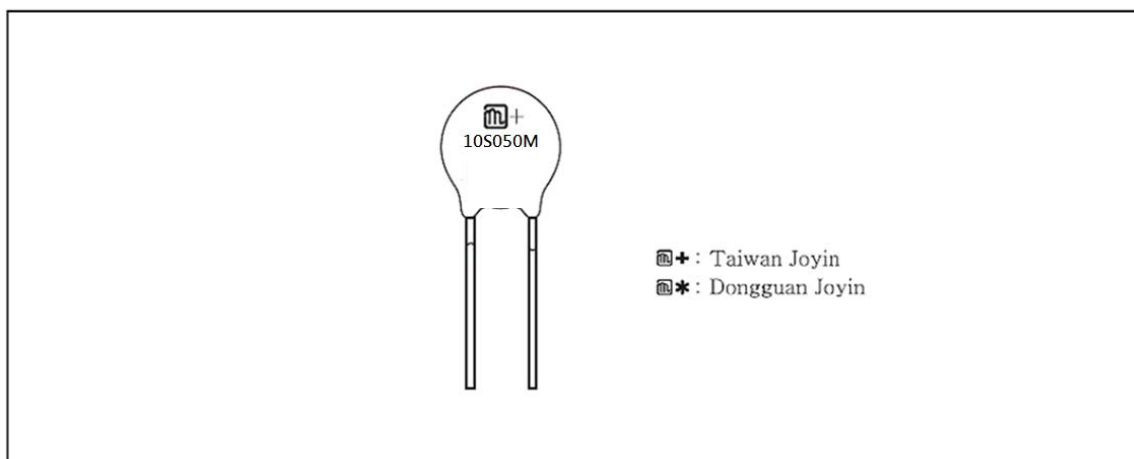
Structure and Dimension



Unit in mm

Diameter	Ø 5mm	Ø 8mm	Ø 10mm	Ø 13mm	Ø 15mm	Ø 20mm	Ø 25mm
D max.	7.5	10.5	12.5	15.5	17.5	23.5	29.0
d ± 0.05	0.6/0.8	0.6/0.8	0.6/0.8	0.8/1.0	0.8/1.0	1.0	1.0
F ± 1.0	5.0	5.0	5.0/7.5	7.5	7.5/10	7.5/10	7.5/10
H max.	11.0	14.5	18.5	21.0	23.0	28.0	36.0
H1 max.	10.0	13.5	17.5	19.0	22.0	27.0	35.0
L min.	24.0	24.0	24.0	24.0	24.0	24.0	20.0
L1 min.	25.0	25.0	25.0	25.0	25.0	25.0	20.0
T max.	6.0	6.0	7.5	8.0	8.0	8.0	8.0

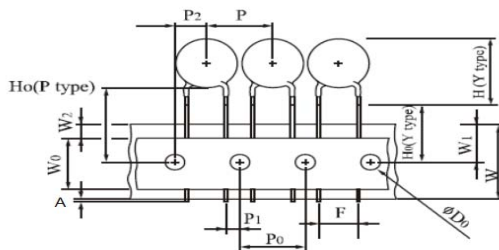
MARKING



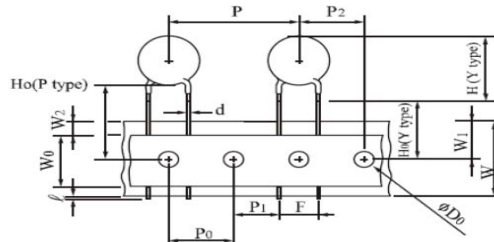
Packaging

Tape and Reel Dimensions

1/2" pitch



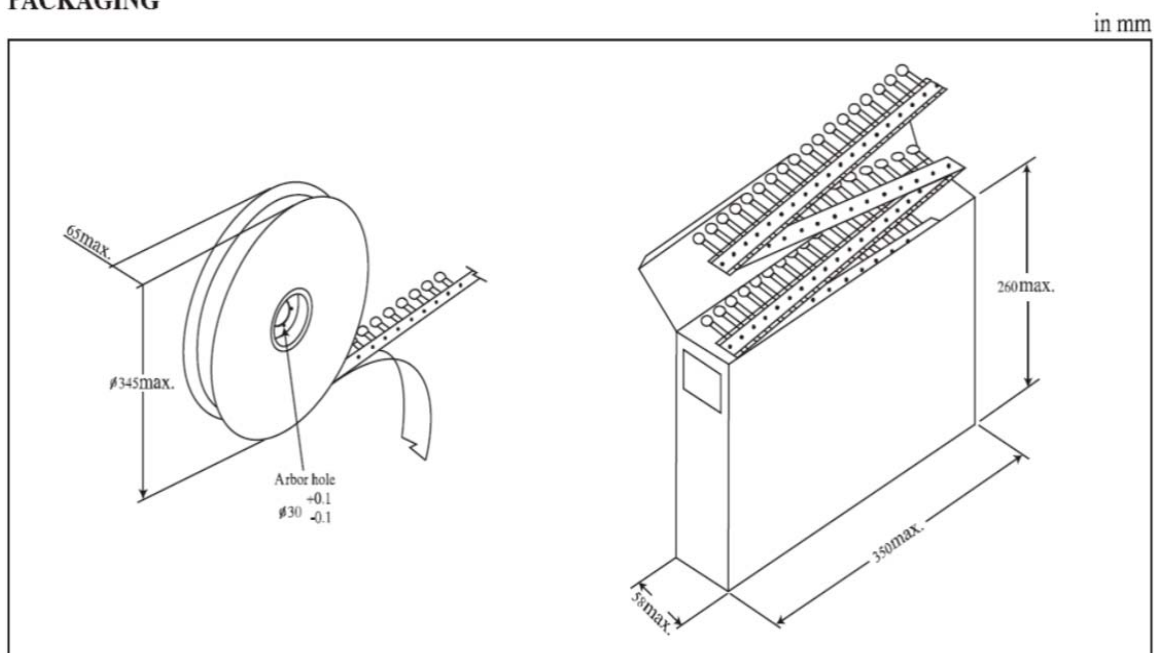
1.0" pitch



Symbols	Item	5 / 8/10 mm	8/10/13/15/20 mm	20/25 mm
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 ⁺¹ _{-0.5} mm	18 ⁺¹ _{-0.5} mm	
W0	Hold down tape width	10.0 mm	12.0 mm	
W1	Sprocket hole position	9 ^{+0.75} _{-0.5} mm	9 ^{+0.75} _{-0.5} 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.	

* for manual line

PACKAGING



Quantity per Packing Unit

Packaging \ Diameter	Ø 5mm	Ø 8mm	Ø 10mm	Ø 13mm	Ø 15mm	Ø 20mm	Ø 25mm
Bulk (box)	5000	4000	1500-2500	1000-2000	750-1500	750-1000	450-750
Reel	1500	1500	750-1000	500-1000	500-750	500-750	-
Ammo	1500	1000	750-1000	500-1000	500-750	-	-

Packaging	Bulk (box)	Reel (5mm~10mm)	Reel (13mm~20mm)	Ammo (5mm,8mm)	Ammo (10mm~15mm)	Ammo (10mm~16mm)	Ammo (20mm)
Box size (mm)	290X155X110	350X350X108	350X350X74	330X240X46	343X210X52	343X260X52	343X220X58
Carton size (mm)	310X328X250	371X371X590	370X370X468	350X500X270	363X440X250	363X540X250	363X460X250
One carton with	4 Boxes	5 Boxes (10 reels)	6 Boxes (6 reels)	10 Boxes	8 Boxes	8 Boxes	8 Boxes