

SPECIFICATION FOR APPROVAL

202602103A

Products Name	NTC Thermistor
CUSTOMER	
JOYIN P/N	JCR-05 系列
Model No	
ISSUE DATE	2026/3/6
REVISION DATE	
REFERENCE NO.	

DRAWN BY 石敏	CHECKED BY 	QA 	APPROVED BY 
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CUSTOMER RESPONSE	
☐ Approval	
☐ Approval with the following change	
☐ Reject with the following reasons	
CUSTOMER SIGNATURE	DATE

- ☐ HEAD OFFICE & Taiwan Factory : **JOYIN CO., LTD.**
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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

NTC Sensor STD. JCR05 series



Features

RoHS / Halogen-Free (HF) compliant
Body size: Ø5mm
Operating temperature range: -40°C~+125°C
Wide resistance range
Agency recognition: UL / TUV

符合 RoHS / Halogen-Free (HF)規範
尺寸：Ø5mm
工作溫度範圍：-40°C ~ + 125°C
電阻範圍廣
安規認證: UL / TUV

Applications

Home appliances
Office automation
Automotive
Switch mode power supplies
Adapters
Security

家電
OA 設備
汽車
開關模式電源
適配器
安防設備

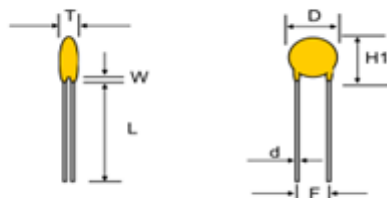
How to Order

Part Number Code																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
J	C	R	1	0	3	F	3	4	4	F	B	5	2	P	U	0	0	5	Y
①			②			③	④			⑤	⑥	⑦	⑧	⑨	⑩		A		B

①	Product Type	JCR05 series	⑤	Tolerance of B Value	F = ±1% H = ±3% J = ±5%	⑨	Lead Style	E = Outside Kink Lead G = Winder Kink Lead P = Straight Lead
②	Zero Power Resistance @25°C (R25)	502 = 5KΩ 103 = 10KΩ 474 = 470KΩ	⑥	Definition of B Value	A = 25/50 B = 25/85	⑩	Packaging	U0 = L:20mm for Bulk AW = H0:16mm for Ammo
③	Tolerance of R25	F = ±1% H = ±3% J = ±5% K = ±10%	⑦	Lead Diameter	5 = 0.5 mm	A	Body Size	05 = 5 mm
④	B Value	344 = 3435 K 405 = 4050 K	⑧	Lead Spacing	2 = 2.5 mm 4 = 3.5 mm	B	Optional Suffix	Internal Control Code

Structure and Dimension

Structure and Dimensions



(Unit : mm)

Body Size	D max.	T max.	F±1.0	d±0.05	L min	W max.	H1 max
Φ 5 mm	6.0	3.5	3.5	0.5	20.0	3.0	8.0

Safety Certification

Standard NO	UL / CUL	TUV
	UL1434	EN 60539-1:2023
File NO	E171531	R 50357749

Electrical Characteristics

Part No	Zero Power Resistance at 25℃	Tolerance of R25	B25/50 Value	Tolerance of B Value	Dissipation Factor	Thermal Time Constant	Max. Power Rating at 25℃	Safety Approvals	
	R 25 (Ω)	(± %)	(K)	(± %)	δ(mW/℃)	τ (sec.)	(mW)		
JCR682X405YA	6,800	10,5,3,1	4050	5,3,1	Approx. 7.2	Approx. 18	450	■	
JCR103X405YA	10,000	10,5,3,1	4050	5,3,1	Approx. 7.2	Approx. 18	450	■	■
JCR103X410YA	100,000	10,5,3,1	4100	5,3,1	Approx. 7.2	Approx. 18	450	■	
JCR104X440YA	100,000	10,5,3,1	4400	5,3,1	Approx. 7.2	Approx. 18	450	■	■
JCR474X520YA	470,000	10,5,3,1	5200	5,3,1	Approx. 7.2	Approx. 18	450	■	■

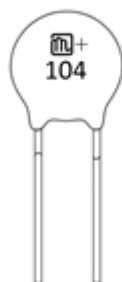
Part No	Zero Power Resistance at 25℃	Tolerance of R25	B25/85 Value	Tolerance of B Value	Dissipation Factor	Thermal Time Constant	Max. Power Rating at 25℃	Safety Approvals	
	R 25 (Ω)	(± %)	(K)	(± %)	δ(mW/℃)	τ (sec.)	(mW)		
JCR102X375YB	1,000	10,5,3,1	3750	5,3,1	Approx. 7.2	Approx. 18	450		
JCR202X385YB	2,000	10,5,3,1	3850	5,3,1	Approx. 7.2	Approx. 18	450		
JCR252X390YB	2,500	10,5,3,1	3900	5,3,1	Approx. 7.2	Approx. 18	450		
JCR332X390YB	3,000	10,5,3,1	3900	5,3,1	Approx. 7.2	Approx. 18	450		
JCR502X405YB	5,000	10,5,3,1	4050	5,3,1	Approx. 7.2	Approx. 18	450		
JCR303X430YB	30,000	10,5,3,1	4300	5,3,1	Approx. 7.2	Approx. 18	450		
JCR204X470YB	200,000	10,5,3,1	4700	5,3,1	Approx. 7.2	Approx. 18	450		
JCR224X500YB	220,000	10,5,3,1	5000	5,3,1	Approx. 7.2	Approx. 18	450		

※ X : R Tolerance, Y : B Value Tolerance

Reliability-NTC Thermistor JCR

Item	Standard	Test condition	Specifications															
Terminal pull strength	IEC 60068-2-21	Gradually applying the force specified and keeping the unit fixed for 10±1 sec. <table><tr><th>Terminal diameter (mm)</th><th>Force (Kg)</th></tr><tr><td>d ≤ 0.25mm</td><td>1N (0.102Kg)</td></tr><tr><td>0.25mm < d ≤ 0.35mm</td><td>2.5N (0.255Kg)</td></tr><tr><td>0.35mm < d ≤ 0.50mm</td><td>5N (0.510Kg)</td></tr><tr><td>0.50mm < d ≤ 0.80mm</td><td>10N (1.02Kg)</td></tr></table>	Terminal diameter (mm)	Force (Kg)	d ≤ 0.25mm	1N (0.102Kg)	0.25mm < d ≤ 0.35mm	2.5N (0.255Kg)	0.35mm < d ≤ 0.50mm	5N (0.510Kg)	0.50mm < d ≤ 0.80mm	10N (1.02Kg)	No visible damage					
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0.35mm < d ≤ 0.50mm	5N (0.510Kg)																	
0.50mm < d ≤ 0.80mm	10N (1.02Kg)																	
Bending Strength of Terminals	IEC 60068-2-21	Hold specimen and apply the force specified below to each lead. Bend the specimen to 90° , then return to the original position. Repeat the procedure in the opposite direction. <table><tr><th>Terminal diameter (mm)</th><th>Force (Kg)</th></tr><tr><td>d ≤ 0.25mm</td><td>0.5N (0.051Kg)</td></tr><tr><td>0.25mm < d ≤ 0.35mm</td><td>1.25N (0.128Kg)</td></tr><tr><td>0.35mm < d ≤ 0.50mm</td><td>2.5N (0.255Kg)</td></tr><tr><td>0.50mm < d ≤ 0.80mm</td><td>5N (0.510Kg)</td></tr></table>	Terminal diameter (mm)	Force (Kg)	d ≤ 0.25mm	0.5N (0.051Kg)	0.25mm < d ≤ 0.35mm	1.25N (0.128Kg)	0.35mm < d ≤ 0.50mm	2.5N (0.255Kg)	0.50mm < d ≤ 0.80mm	5N (0.510Kg)	No visible damage					
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Solderability	IEC 60068-2-20	245±3℃ , 3±0.3 sec	At least 95% of terminal electrode is covered by new solder															
Resistance to soldering heat	IEC 60068-2-20	260±5℃ ,10±1 sec	No visible damage △R25/R25 ≤ ±5%															
High temperature storage	IEC 60068-2-2	125±2℃ , 1000hrs	No visible damage △R25/R25 ≤ ±5%															
Damp Heat Steady State	IEC 60068-2-78	40±2℃ , 90~95% RH, 1000±24hrs	No visible damage △R25/R25 ≤ ±5%															
Rapid Change of Temperature	IEC 60068-2-14	The conditions shown below shall be repeated 5 cycles. <table><tr><th>Step</th><th>Temperature (℃)</th><th>Period (minutes)</th></tr><tr><td>1</td><td>-40±5</td><td>30±3</td></tr><tr><td>2</td><td>Room temperature</td><td>5±3</td></tr><tr><td>3</td><td>125±5</td><td>30±3</td></tr><tr><td>4</td><td>Room temperature</td><td>5±3</td></tr></table>	Step	Temperature (℃)	Period (minutes)	1	-40±5	30±3	2	Room temperature	5±3	3	125±5	30±3	4	Room temperature	5±3	No visible damage △R25/R25 ≤ ±5%
Step	Temperature (℃)	Period (minutes)																
1	-40±5	30±3																
2	Room temperature	5±3																
3	125±5	30±3																
4	Room temperature	5±3																
Life Test	IEC 60539-1 4.26.3	25±5℃ , Pmax, 1000hrs	No visible damage △R25/R25 ≤ ±5%															

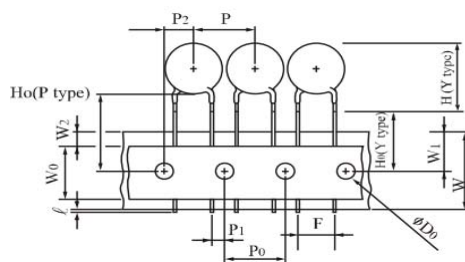
Marking



□+ : Taiwan Joyin
 □* : Dongguan Joyin

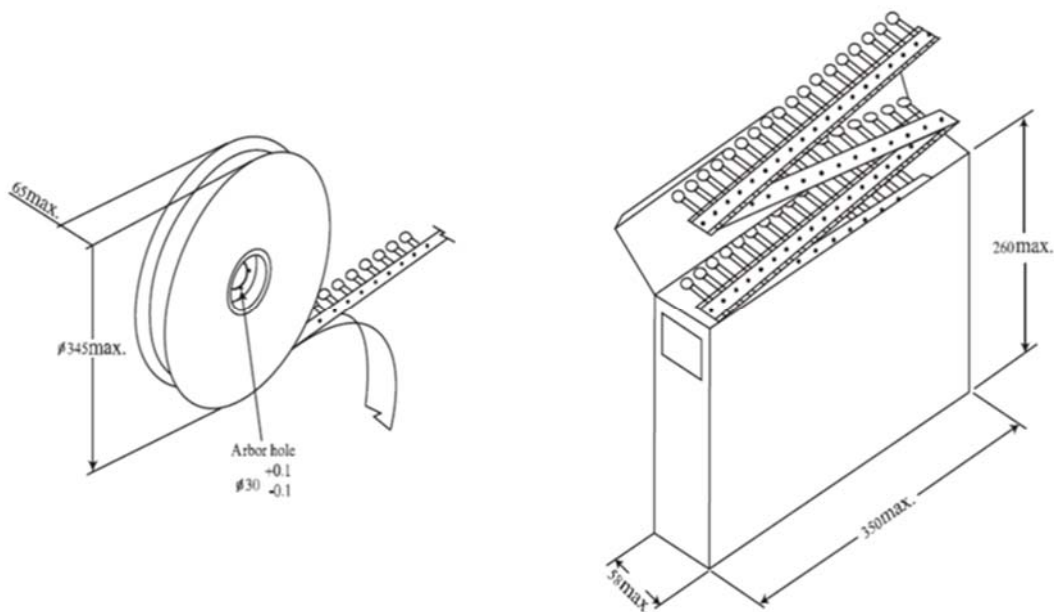
Tape and Reel

1/2" pitch



Symbols	Item	JCR05
I	Cut out length	1.1 mm max.
Ho(P type)	Height of component from hole center	16.0 ~ 21.0 mm
Δh	Front to back deviation	0± 2.0 mm
W	Carrier tape width	18 ^{+1.5} mm
W0	Hold down tape width	10.0 mm
W1	Sprocket hole position	9 ^{+0.75} _{-0.5} mm
W2	Adhesive tape position	3.0 mm max.
F	Component lead spacing	3.5±1.0 mm
P	Pitch of component	12.7 ± 1.0 mm
P0	Sprocket hole pitch	12.7 ± 0.3 mm
P1	Lead length from hole center to lead	4.6 ± 0.7 mm
P2	Length from hole center to disk center	6.35 ± 1.3 mm
D0	Sprocket hole diameter	4.0 ± 0.2 mm
d	Lead wire diameter	0.5± 0.05 mm
T	Disk thickness	3.5 mm max.
t1	Total thickness tape	0.7 ± 0.05 mm
t2	Total thickness	1.6 mm max.

Packaging



Packaging Diameter	Bulk (box)	Reel	Ammo
JCR05	5000	1500	1500

Packaging	Bulk (box)	Reel (JCR05)	Ammo (JCR05)
Box size (mm)	290X155X110	350X350X108	335X245X43
Carton size (mm)	310X328X250	371X371X590	515X354X258
One carton with	4 Boxes	5 Boxes (10 reels)	10 Boxes