PRODUCT SPECIFICATION

PRODUCT : NTC SENSOR STD.

TYPE : JCR05 SERIES

CUSTOMER : _____

APPROVED BY CUSTOMER

VENDOR :

☐ **HITANO ENTERPRISE CORP.**
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HITANO ENTERPRISE CORP. ®

JOYIN

Record of change

Date	Version	Description	page

Features

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

Applications

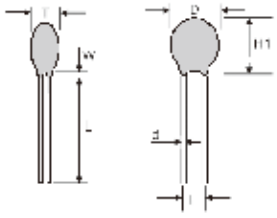
Home appliances
Office automation
Switch mode power supplies
Adapters
Security

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	5	0	5	Y
①			②			③	④			⑤	⑥	⑦	⑧	⑨	⑩		Ⓐ		Ⓑ

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℃(R25)	502 = 5KΩ 103 =10KΩ 474 =470KΩ	⑥	Definition of B Value	A = 25/50 B = 25/85	⑩	Packaging	U5 = L:25mm 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	Ⓐ	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	Ⓑ	Optional Suffix	Internal Control Code

Structure and Dimension



Unit : mm

Body Size	Dmax.	Tmax.	F±0.5	d±0.05	Wmax	H1max
Ø 5mm	6.0	3.5	2.5	0.5	3.0	8.0

Electrical Characteristics

Part No.	Zero Power Resistance at 25℃	Tolerance of R25	B 25/50 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	■	■

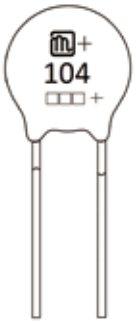
Part No.	Zero Power Resistance at 25℃	Tolerance of R25	B 25/85 Value	Tolerance of B Value	Dissipation Factor	Thermal Time Constant	Max. Power Rating at 25℃	Safety Approvals
	R 25 (Ω)	(± %)	(K)	(± %)	δ(mW/℃)	τ(sec.)	(mW)	
JCR102X375YB	1,000	10,5,3,1	3750	5,3,1	Approx. 7.2	Approx. 18	450	
JCR202X385YB	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

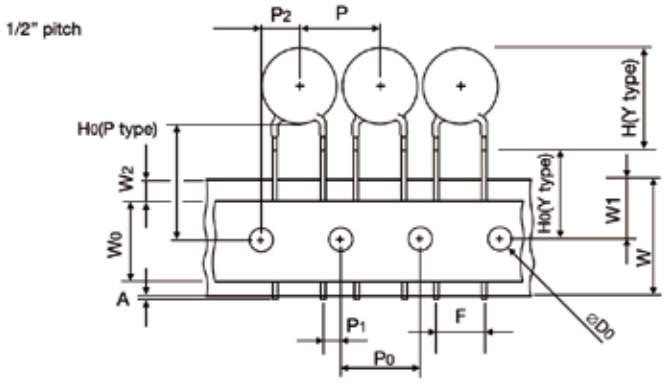
<table>
<tr><th>Item</th><th>Standard</th><th>Test condition</th><th>Specifications</th></tr>
<tr><td>Terminal pull strength</td><td>IEC 60068-2-21</td><td>Gradually applying the force specified and keeping the unit fixed for 10±1 sec.<table><tr><th>Terminal diameter (mm)</th><th>Force (Kg)</th></tr><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></td><td>No visible damage</td></tr>
<tr><td>Bending Strength of Terminals</td><td>IEC 60068-2-21</td><td>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></td><td>No visible damage</td></tr>
<tr><td>Solderability</td><td>IEC 60068-2-20</td><td>245±3^{0}C, 3±0.3 sec</td><td>At least 95% of terminal electrode is covered by new solder</td></tr>
<tr><td>Resistance to soldering heat</td><td>IEC 60068-2-20</td><td>260±5^{0}C,10±1 sec</td><td>No visible damage
△R25/R25≦±5%</td></tr>
<tr><td>High temperature storage</td><td>IEC 60068-2-2</td><td>125±2^{0}C, 1000hrs</td><td>No visible damage
△R25/R25≦±5%</td></tr>
<tr><td>Damp Heat Steady State</td><td>IEC 60068-2-78</td><td>40±2^{0}C , 90~95% RH, 1000±24hrs</td><td>No visible damage
△R25/R25≦±5%</td></tr>
<tr><td>Rapid Change of Temperature</td><td>IEC 60068-2-14</td><td>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></td><td>No visible damage
△R25/R25≦±5%</td></tr>
<tr><td>Life Test</td><td>IEC 60539-1 4.26.3</td><td>25±5^{0}C , Pmax, 1000hrs</td><td>No visible damage
△R25/R25≦±5%</td></tr>
</table>

Marking



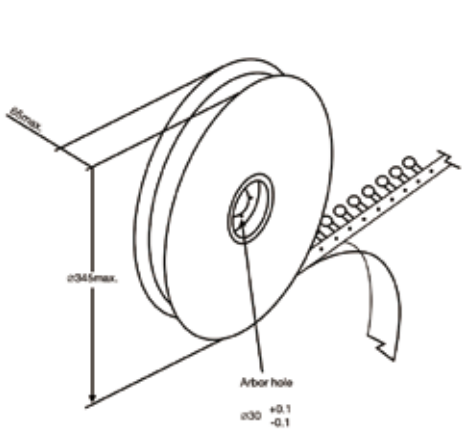
+ : Taiwan Joyin
* : Dongguan Joyin
□□□+ : Internal code

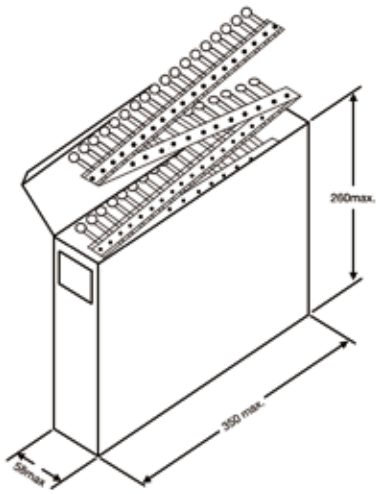
Tape & Reel



Symbols	Item	JCR05
l	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
Wo	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