PRODUCT SPECIFICATION

PRODUCT : NTC SENSOR SPECIALTY

TYPE : JTD SERIES

CUSTOMER : _____

APPROVED BY CUSTOMER

VENDOR :

☐ **HITANO ENTERPRISE CORP.**
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MAKER :

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HITANO ENTERPRISE CORP. ®

JOYIN

Record of change

Date	Version	Description	page

Features

RoHS / Halogen-Free (HF) compliant
Accuracy
Operating temperature range : -40℃~+ 105℃
Wide resistance range
Agency recognition : UL / TUV

Applications

Home appliances
Mobile devices
Battery packs
Body thermometers

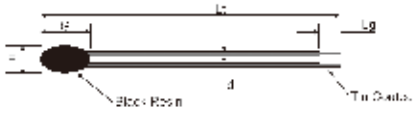
How to Order

Part Number Code																				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
J	T	D	1	0	3	F	3	4	4	F	B	1	2	0	8	7	N	X	X	X
①			②			③	④			⑤	⑥	⑦		⑧			⑨	⑩	Ⓐ	

①	Product Type	JTD series	⑤	Tolerance of B Value	F = ±1% G = ±2%	⑨	Coating Type	N = Black Resin
②	Zero Power Resistance @25℃(R25)	103 = 10KΩ 503 = 50KΩ 104 = 100KΩ	⑥	Definition of B Value	A = 25/50 B = 25/85	⑩	Soldered Length	X = 3.0 ± 1 mm M = 2.5 ± 1 mm
③	Tolerance of R25	F = ±1% G = ±2%	⑦	Lead Diameter	12 = Ø0.12mm Enameled wire 26 = Ø0.26mm Enameled wire	Ⓐ	Optional Suffix	Internal Control Code
④	B Value	344 = 3435 K 398 = 3980 K	⑧	Lead Length	025 = 25 mm 087 = 87 mm			

Structure and Dimension

Unit in mm



d	G max	E max	Lt ±5	Lg±1
0.08	4	0.7	40~130	3~5
0.12	4	1.4		
0.16	5	1.6		
0.26	5	1.8		

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)		
JTD103X338YA	10,000	10,5,3,1	3380	5,3,1	Approx. 1.6	Approx. 3.4	3.5	■	
JTD103X395YA	10,000	10,5,3,1	3950	5,3,1	Approx. 1.6	Approx. 3.4	3.5	■	
JTD473X395YA	47,000	10,5,3,1	3950	5,3,1	Approx. 1.6	Approx. 3.4	3.5	■	■
JTD503X395YA	50,000	10,5,3,1	3950	5,3,1	Approx. 1.6	Approx. 3.4	3.5	■	
JTD104X395XA	100,000	10,5,3,1	3950	5,3,1	Approx. 0.7	Approx. 0.8	3.5	■	■
JTD104X425YA	100,000	10,5,3,1	4250	5,3,1	Approx. 0.7	Approx. 0.8	3.5		

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)		
JTD103X344YB	10,000	10,5,3,1	3435	5,3,1	Approx. 0.7	Approx. 0.8	3.5	■	■
JTD103X398YB	10,000	10,5,3,1	3980	5,3,1	Approx. 0.7	Approx. 0.8	3.5	■	
JTD104X408YB	100,000	10,5,3,1	4080	5,3,1	Approx. 0.7	Approx. 0.8	3.5		
JTD104X436YB	100,000	10,5,3,1	4360	5,3,1	Approx. 0.7	Approx. 0.8	3.5		

※ X : R Tolerance, Y : B Value Tolerance

Reliability-NTC Thermistor JTD

<table>
<tr><th>Test description</th><th>Standard</th><th>Test condition</th><th>Test requirement</th></tr>
<tr><td>Terminal pull strength</td><td>IEC 60068-2-21</td><td>After gradually applying the load specified below 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>Resin coating strength</td><td>Specification Standard</td><td>The lead-wire shall be firmly wrapped on the cylinder with the diameter of 3mm.
A downward tension shall be applied to the lead-wire and increased to 1N.</td><td>No visible damage</td></tr>
<tr><td>Free fall</td><td>IEC 60068-2-32</td><td>After 3 times free fall to a maple board from 1m height.</td><td>△R25/R25≦±5%</td></tr>
<tr><td>Damp heat</td><td>IEC 60068-2-78</td><td>Temperature 40±3^{0}C R.H.90~95% for 1000hours without load</td><td>△R25/R25≦±5%</td></tr>
<tr><td>Dry heat</td><td>IEC 60068-2-2</td><td>Test sample shall be exposed in air 100^{0}C±3^{0}C for 1000 hours. After being stored within normal room ambient temperature and humidity for 1 hour.</td><td>△R25/R25≦±5%</td></tr>
<tr><td>Life Test</td><td>IEC 60539-1</td><td>25±5^{0}C , 3.5mW, 1000hrs</td><td>△R25/R25≦±5%</td></tr>
<tr><td>Thermal shock</td><td>IEC 60068-2-14</td><td>Temperature cycling shall be proceeded in the following order and conditions.
(a) At room ambient temperature.(initial value)
(b) At -30^{0}C for 30 minutes.
(c) At room ambient temperature for 5 minutes.
(d) At +100^{0}C for 30 minutes.
(e) At room ambient temperature for 5 minutes.
100 cycles shall be repeated. After being stored within normal room ambient temperature and humidity for 1 hour.</td><td>△R25/R25≦±5%</td></tr>
<tr><td>Resistance to soldering heat</td><td>IEC 60068-2-20</td><td>After lead wire of test sample was one time dipped within 3.0mm from end of lead wire in solder bath at 260^{0}C±5^{0}C for 10±1 seconds. After being stored within normal room ambient temperature and humidity for 1 hour.</td><td>△R25/R25≦±5%</td></tr>
<tr><td>Solderability</td><td>IEC 60068-2-20</td><td>After lead wire of test sample was one time dipped within 3.0mm from end of lead wire in solder bath at 245^{0}C±3^{0}C for 3±0.3 seconds. After being stored within normal room ambient temperature and humidity for 1 hour.</td><td>At least 95% of terminal electrode is covered by new solder</td></tr>
<tr><td>Low temperature storage</td><td>IEC60068-2-1</td><td>Test sample shall be exposed in air -40±2^{0}C for 1000hours. After being stored within normal room ambient temperature and humidity for 1 hour.</td><td>△R25/R25≦±5%</td></tr>
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