DATA SHEET

PRODUCT **NTC Thermistor Sensor**

SERIES JAS Series

PART NO.

QUICK REFERENCE DATA

PARAMETER	VALUE	UNIT
Resistance Value R25	10~ 100	KΩ
B25/50	3380~4250	K
B25/85	3435~4360	K

ISSUE DATE 2023/2/4

REVISION DATE 2023/2/4

REFERENCE NO.

RoHS COMPLIANCE ITEM

Halogen Free

NTC Sensor Specialty JAS series

Features

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

符合 RoHS / Halogen-Free (HF)規範
工作溫度範圍：-40℃～+ 125℃
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

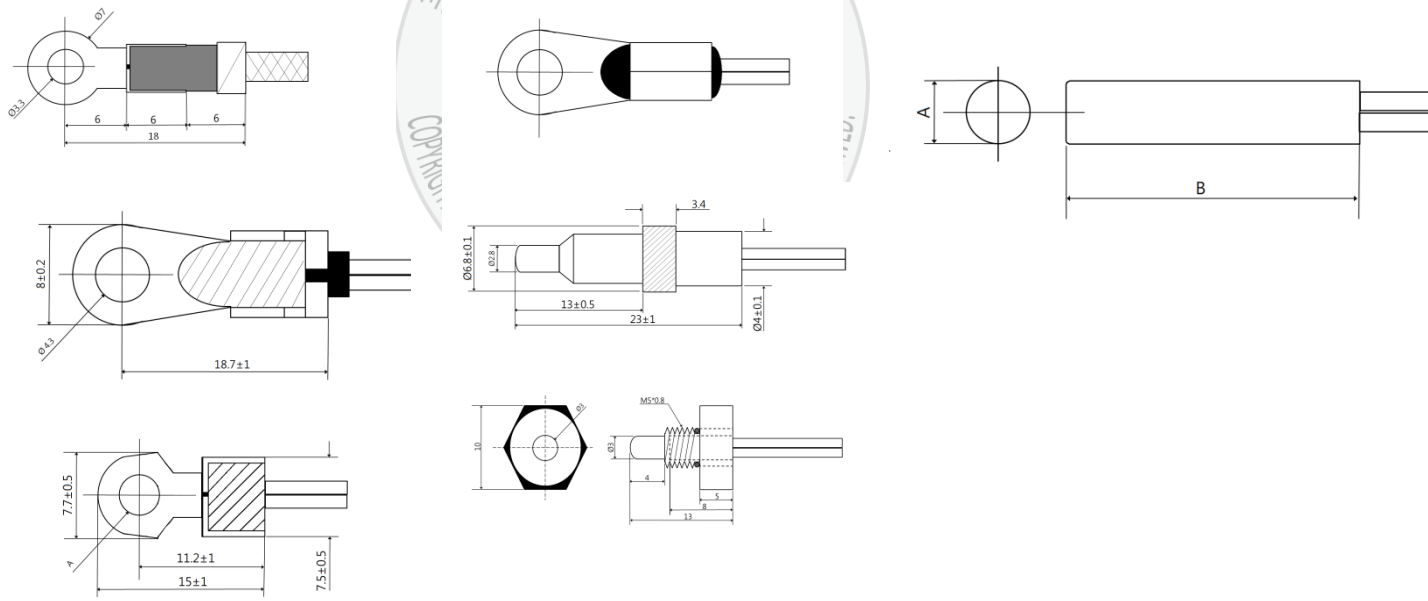
Part Number Code																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
J	**A**	**S**	**1**	**0**	**3**	**F**	**3**	**4**	**4**	**F**	**B**	**2**	**8**	**0**	**0**	**0**	**1**	**B**	**X**
①			②			③	④			⑤	⑥	⑦		⑧					

①	Product Type	JAS series	⑤	Tolerance of B Value	F = ±1% G = ±2% H = ±3% J = ±5%
②	Zero Power Resistance @25℃（R25）	502 = 5KΩ 103 = 10KΩ 474 = 470KΩ	⑥	Definition of B Value	A = 25/50 B = 25/85
③	Tolerance of R25	F = ±1% G = ±2% H = ±3% J = ±5% K = ±10%	⑦	Lead Diameter	26 = 26 AWG 28 = 28AWG 30= 30AWG
④	B Value	344 = 3435 K 405 = 4050 K 425 = 4250 K	⑧	Optional Suffix	Internal Control Code

Structure and Dimension (Terminal Lug type)

① 感測頭 (Lug)	② 導線 (Lead)	③ 導線末端加工 (connector)
感測頭樣式可依客戶需求變更 常用感測頭型式如下圖 Lug can be designed by customer needs. Please refer the Lug type as below.	導線長度 / 規格可依客戶需求調整 Lead length / type can be designed by customer needs.	可依客戶需求加裝連接器 Connector can be added by customer needs.

感測頭樣式參考 (Lug type reference)



材質 Material	尺寸 Dimension
鍍鎳銅殼(Nickel plated copper shell) SUS 不鏽鋼殼(Stainless steel shell) ABS 塑膠 (ABS)	A:Ø 4.0mm,5.0mm B:20mm,25mm,30mm

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)		
JAS103X395YA	10,000	10,5,3,1	3950	5,3,2,1	Approx. 2.0	Approx. 10	45	■	
JAS103X405YA	10,000	10,5,3,1	4050	5,3,2,1	Approx. 2.0	Approx. 10	45	■	
JAS103X410YA	10,000	10,5,3,1	4100	5,3,2,1	Approx. 2.0	Approx. 10	45	■	
JAS473X395YA	47,000	10,5,3,1	3950	5,3,2,1	Approx. 2.0	Approx. 10	45	■	
JAS473X405YA	47,000	10,5,3,1	4050	5,3,2,1	Approx. 2.0	Approx. 10	45	■	
JAS503X395YA	50,000	10,5,3,1	3950	5,3,2,1	Approx. 2.0	Approx. 10	45	■	
JAS104X395YA	100,000	10,5,3,1	3950	5,3,2,1	Approx. 2.0	Approx. 10	45	■	
JAS104X425YA	100,000	10,5,3,1	4250	5,3,2,1	Approx. 2.0	Approx. 10	45		

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)		
JAS103X344YB	10,000	10,5,3,1	3435	5,3,2,1	Approx. 2.0	Approx. 10	45	■	■
JAS103X398YB	10,000	10,5,3,1	3977	5,3,2,1	Approx. 2.0	Approx. 10	45	■	
JAS333X398YB	33,000	10,5,3,1	3980	5,3,2,1	Approx. 2.0	Approx. 10	45		
JAS473X397YB	47,000	10,5,3,1	3970	5,3,2,1	Approx. 2.0	Approx. 10	45	■	
JAS473X408YB	47,000	10,5,3,1	4080	5,3,2,1	Approx. 2.0	Approx. 10	45		
JAS503X397YB	50,000	10,5,3,1	3970	5,3,2,1	Approx. 2.0	Approx. 10	45	■	
JAS683X404YB	68,000	10,5,3,1	4040	5,3,2,1	Approx. 2.0	Approx. 10	45		
JAS104X408YB	100,000	10,5,3,1	4080	5,3,2,1	Approx. 2.0	Approx. 10	45		
JAS104X419YB	100,000	10,5,3,1	4190	5,3,2,1	Approx. 2.0	Approx. 10	45		
JAS104X425YB	100,000	10,5,3,1	4250	5,3,2,1	Approx. 2.0	Approx. 10	45	■	
JAS104X436YB	100,000	10,5,3,1	4360	5,3,2,1	Approx. 2.0	Approx. 10	45		
JAS153X420YB	150,000	10,5,3,1	4200	5,3,2,1	Approx. 2.0	Approx. 10	45		

※ X : R Tolerance, Y : B Value Tolerance

Reliability- NTC Sensor Specialty JAS series

<table>
<tr><th>Test description</th><th>Standard</th><th>Test condition</th><th>Test requirement</th></tr>
<tr><td>Tensile Strength of Terminals</td><td>IEC 60068-2-21</td><td>Apply 0.5kg force and fix the device for 10±1 seconds.</td><td>No visible damage</td></tr>
<tr><td>Resistance to soldering heat</td><td>IEC 60068-2-20</td><td>Terminals of lead wire are immersed in solder in bath at 260±5 ℃ for 10±1 seconds.</td><td>△R25/R25≦±5%</td></tr>
<tr><td>Solderability</td><td>IEC 60068-2-20</td><td>Terminals of lead wire are immersed in solder (Pb free) bath at 245±3℃ for 3±0.3 seconds.</td><td>Above 95% in the terminal surface shall be with new solder</td></tr>
<tr><td>High Temperature Storage</td><td>IEC 60068-2-2</td><td>Test sample shall be exposed in air at Tmax for 1000 hours. After being stored in room temperature and humidity for one hour.</td><td>△R25/R25≦±5%</td></tr>
<tr><td>Damp Heat Steady State</td><td>IEC 60068-2-78</td><td>Test sample shall be exposed in 40℃, 90～95%RH for 1000 hours. After being stored in room temperature and humidity for one hour.</td><td>△R25/R25≦±5%</td></tr>
<tr><td>Low Temperature Storage</td><td>IEC 60068-2-2</td><td>Test sample shall be exposed in air at -40℃ for 1000 hours. After being stored in room temperature and humidity for one hour.</td><td>△R25/R25≦±5%</td></tr>
<tr><td>Rapidchange of Temperature</td><td>IEC 60068-2-14</td><td>Temperature cycle shall be repeated five 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>Tmax</td><td>30±3</td></tr><tr><td>4</td><td>Room temperature</td><td>5±3</td></tr></table>After being stored in room temperature and humidity for one hour.</td><td>△R25/R25≦±5%</td></tr>
<tr><td>Life Test</td><td>IEC60539-1 4.26.3</td><td>Apply Pmax to the sample for 1000 hours at room temperature, and measure after one hour storage at room temperature and humidity</td><td>△R25/R25≦±5%</td></tr>
<tr><td>Hi-Pot Test</td><td>IEC60539-1</td><td>Short-circuit the two wires of the product, and apply a voltage of 300Vrms (AC) between the encapsulating material and the wires at room temperature for 1.5 seconds.</td><td>No visible damage
I_{Leak}≦1mA</td></tr>
<tr><td>Insulation Resistance</td><td>MIL-STD-202F Method 302</td><td>Measured at DC 100V The resistance must be above 100MΩ for 60± 3 sec</td><td>No visible damage
≧100MΩ</td></tr>
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