



CPTC Thermistor

PRODUCT DATA

■ Temperature Sensor

● Features

1. Small size
2. Very fast reaction time
3. Wide range of protection temperatures, from 60°C to 180°C
4. No need reset supply after protection
5. Stable over along life

● Recommended Applications

1. Electrical equipment (Electrical machinery, Transformer)

● Approvals



* UL 1434 Recognized(File#E138827)

* cUL Recognized(File#E138827)

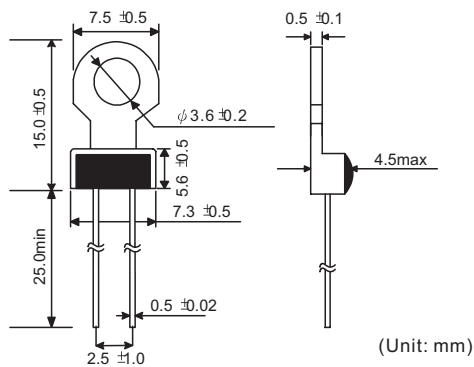


* CQC Certificate No.CQC03001008129 & CQC03001008130



● Dimensions

PTM Series





● Characteristics

PTM Series

Part No.	Curie Temperature	Sensing Temperature	Resistance Value			Maximum Voltage	Maximum Current
	T _c (°C)	T _s (°C)	25°C (Ω)	T _s -5°C (Ω)	T _s +5°C (Ω)	V _{max} (V)	I _{max} (mA)
PTMS2101□P4**	40±10	55	100 max.	330 max.	470 min.	30	100
PTMS2101□P5**	50±10	65					
PTMS2101□P6**	60±10	75					
PTMS2101□P7**	70±10	85					
PTMS2101□P8**	80±10	95					
PTMS2101□P9**	90±10	105					
PTMS2101□A0**	100±10	115	330 max.	1500 max.	2200 min.		
PTMS2331□P4**	40±10	55					
PTMS2331□P5**	50±10	65					
PTMS2331□P6**	60±10	75					
PTMS2331□P7**	70±10	85					
PTMS2331□P8**	80±10	95					
PTMS2331□P9**	90±10	105					
PTMS2331□A0**	100±10	115					

Note1: □=Tolerance of R₂₅

Note2: **= Maximum Voltage: 16V or 30V.

PTM-B02/03 Series

Part No.	Curie Temperature	Sensing Temperature	Resistance Value					Maximum Voltage	Maximum Current
	T _c (°C)	T _s (°C)	25°C (Ω)	T _s -5°C (Ω)	T _s +5°C (Ω)	T _s +15°C (Ω)	T _s +23°C (Ω)	V _{max} (V)	I _{max} (mA)
PTMS2101□P4**B02	40±10	60	100 max.	570 max.	570 min.	—	10K min.	30	100
PTMS2101□P5**B02	50±10	70							
PTMS2101□P6**B02	60±10	80		550 max.	1330 min.	4000 min.	—		
PTMS2101□P7**B03	70±10	90							
PTMS2101□P8**B03	80±10	100							
PTMS2101□P9**B03	90±10	110							
PTMS2101□A0**B03	100±10	120							
PTMS2101□A1**B03	110±10	130							
PTMS2101□A2**B03	120±10	140							

Note1: □=Tolerance of R₂₅

Note2: **= Maximum Voltage: 16V or 30V.



● **Reliability Test**

Item	Test Condition / Methods	Standard
Resistance to Soldering Heat	Temperature: 350 ± °C Duration: 3~4 s	IEC60068-2-20 Test T _B
Robustness of Termination	Tensile, bending and torsion tests as appropriate to type termination	IEC60068-2-21
Rapid Change of Temperature	T _A =LCT T _B =UCT Number of cycles:5 Duration: 30 min	IEC60068-2-14 Test N _a
Vibration	Frequency :10-55 Hz h= 0.75 min Duration: 6 h	IEC 60068-2-6 Test F _C
Shock	Pulse shape: half-sine Acceleration: 50m/s ² Pulse duration: 30 ms	IEC 60068-2-27 Test E _a
Climatic Sequence	Dry heat :T= 40°C, 24hrs , 20%Rh Damp heat first cycle: T=40°C 95% R h Cold: T=0°C, 2hrs Damp heat 5 cycles	IEC 60068-2-2 Test B _a IEC 60068-2-30 Test D _b IEC 60068-2-1 Test A _a
Thermal Time Constant by Cooling	63.2% of temperature excess	IEC 60738-1
Temperature Coefficient of Resistance	$\alpha_T = \ln(R_{Tc+25}/R_{Tc+10}) / 15$ R _{Tc} =2R _{min}	IEC 60738-1
Dissipation Factor at V _{max}	Voltage: V _{max} Current: <I _{max}	IEC 60738-1
Endurance at Upper Category Temperature	Temperature: UCT Duration: 1000 hrs	IEC 60738-1
Endurance at Maximum Operating Temperature and Maximum Voltage	Voltage: V _{max} Temperature: UCT Current: <I _{max} Duration: 1000 hrs	IEC 60738-1
Damp Heat Steady State	Temperature: 40 ±5°C Relative humidity of air: 95~98%Rh Duration: 1000 hrs	IEC 60068-2-3 Test C _a