

Series I Thermistors

2.2 to 100K Ohms Resistance @25°C
Thermally Conductive Epoxy Coating
Choice of 4 Temperature Tolerance
Classifications
Low Cost

SERIES I THERMISTORS

The BetaCURVE chip is soldered to 32 AWG Alloy 180 leads and encapsulated in Stycast epoxy resin

FEATURES

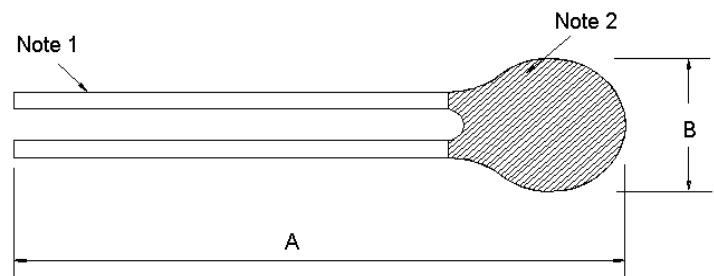
- 2.2 to 100K Ohms Resistance @25°C
- Proven Stability and Reliability
- Alloy lead wires for reduced thermal conductivity
- Interchangeability
- Thermally conductive epoxy coating
- Temperature range -40°C to +125°C
- RoHS Compliant

APPLICATIONS

- Tight tolerance instrumentation
- Temperature sensing, control and compensation
- Assembly into probes for a wide variety of applications
- General instrumentation applications



Dimensions



	Dimensions	
	A	B
	76 ± 2mm	2.4mm Max
Note 1	32 AWG Solid Alloy 180 Leads	
Note 2	Stycast 2850ft Epoxy	

Product Definition

Part Number	Color Coding	Resistance [Ω] @ +25°C	Tolerance from 0 to +70°C	Alpha Value @ +25°C	Beta Value 25/85	Beta Tolerance	Dissipation Constant in still air @ +25°C	Time response (Stirred Oil)
2.2K3A1A	Brown	2,252	±0.1°C	-4.39 %/ °C	3976	±0.5%	0.75 mW/°C	<1 second
2.2K3A1B			±0.2°C					
2.2K3A1C			±0.5°C					
2.2K3A1D			±1.0°C					
3K3A1A	Red	3,000	±0.1°C	-4.39 %/ °C	3976	±0.5%	0.75 mW/°C	<1 second
3K3A1B			±0.2°C					
3K3A1C			±0.5°C					
3K3A1D			±1.0°C					
5K3A1A	Orange	5,000	±0.1°C	-4.39 %/ °C	3976	±0.5%	0.75 mW/°C	<1 second
5K3A1B			±0.2°C					
5K3A1C			±0.5°C					
5K3A1D			±1.0°C					
10K3A1A	Yellow	10,000	±0.1°C	-4.39 %/ °C	3976	±0.5%	0.75 mW/°C	<1 second
10K3A1B			±0.2°C					
10K3A1C			±0.5°C					
10K3A1D			±1.0°C					
10K4A1A	Black	10,000	±0.1°C	-4.04 %/ °C	3694	±0.5%	0.75 mW/°C	<1 second
10K4A1B			±0.2°C					
10K4A1C			±0.5°C					
10K4A1D			±1.0°C					
30K5A1A	White	30,000	±0.1°C	-4.30 %/ °C	3942	±0.5%	0.75 mW/°C	<1 second
30K5A1B			±0.2°C					
30K5A1C			±0.5°C					
30K5A1D			±1.0°C					
30K6A1A	Green	30,000	±0.1°C	-4.68 %/ °C	4261	±0.5%	0.75 mW/°C	<1 second
30K6A1B			±0.2°C					
30K6A1C			±0.5°C					
30K6A1D			±1.0°C					
50K6A1A	Blue	50,000	±0.1°C	-4.68 %/ °C	4261	±0.5%	0.75 mW/°C	<1 second
50K6A1B			±0.2°C					
50K6A1C			±0.5°C					
50K6A1D			±1.0°C					
100K6A1A	Violet	100,000	±0.1°C	-4.68 %/ °C	4261	±0.5%	0.75 mW/°C	<1 second
100K6A1B			±0.2°C					
100K6A1C			±0.5°C					
100K6A1D			±1.0°C					

Reliability data

Test	Standard	Test conditions	$\Delta R_{25}/R_{25}$	Remarks
Storage in dry heat	IEC 60068-2-2	High temperature storage @+100°C. Duration: 1000 h	<0.5%	No mechanical damage
Storage in dry heat	IEC 60068-2-2	High temperature storage @+125°C. Duration: 1000 h	<1%	No mechanical damage
Storage in damp heat, steady state	IEC60068-2-78	Ambient Conditions: Temperature: +40°C. Relative humidity 93% Duration: 56 days	<1%	No mechanical damage
Rapid temperature cycling	IEC60068-2-14	Lower test temperature: -40°C Upper test temperature: +125°C Number of cycles: 1000	<1%	No mechanical damage
Endurance		Pmax: 60mW Duration: 1000 h	<2%	No mechanical damage

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