



1K2A1 SERIES V

Thermistor

SPECIFICATIONS

- Thermally conductive epoxy coating
- Ø 2.4 mm Maximum Diameter
- 32 AWG Alloy 180 Leads
- RoHS Compliant

The BetaCURVE Chip is Soldered to 32 AWG Alloy 180 Leads and Encapsulated in Stycast Epoxy Resin

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FEATURES

- Interchangeability
- Proven Stability and Reliability
- Rapid time response
- Alloy lead wires for reduced thermal conductivity ("stem effect")
- Thermally Conductive Epoxy Coating
- Temperature range -40 °C to +125°C

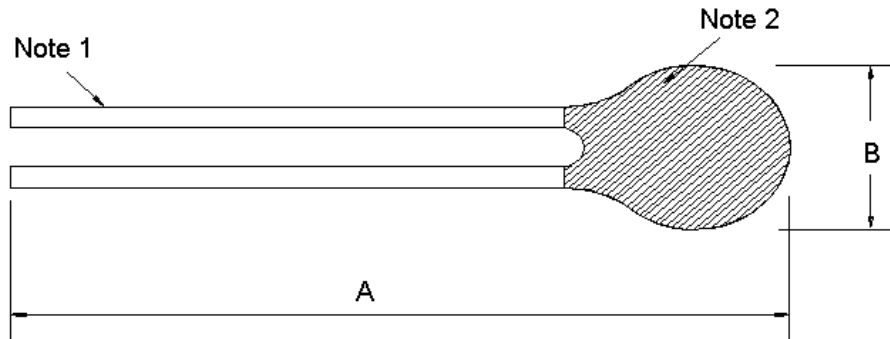
APPLICATIONS

- Temperature sensing, control and compensation
- Suitable for measurement applications at the lower temperature ranges
- Assembly into probes used in low temperature applications

PERFORMANCE SPECS

| Parameters | Units | Value |
|--|---------|-------|
| Resistance @ +25°C | Ohms | 1000 |
| Resistance tolerance from 0°C to +25°C | °C | 0.2 |
| Alpha Value @ 25°C | %/°C | 3.68 |
| Beta Value 25/85 | K | 3348 |
| Tolerance on Beta Value 25/85 | % | 0.5 |
| Time response in Liquids | Seconds | <1 |
| Dissipation Constant in still air | mW/°C | 0.75 |

MECHANICAL DETAILS



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

RESISTANCE V TEMPERATURE TABLE

| Temp. °C | Ohms |
|----------|------|
|----------|------|

| | |
|-----|---------|
| -40 | 18641.3 |
| -39 | 17648.9 |
| -38 | 16715.5 |
| -37 | 15837.1 |
| -36 | 15010.1 |
| -35 | 14231.4 |
| -34 | 13497.7 |
| -33 | 12806.3 |
| -32 | 12154.5 |
| -31 | 11539.8 |
| -30 | 10959.8 |
| -29 | 10412.5 |
| -28 | 9895.7 |
| -27 | 9407.7 |
| -26 | 8946.7 |
| -25 | 8511.0 |
| -24 | 8099.0 |
| -23 | 7709.5 |
| -22 | 7341.0 |
| -21 | 6992.3 |
| -20 | 6662.1 |
| -19 | 6349.6 |
| -18 | 6053.5 |
| -17 | 5772.9 |
| -16 | 5507.0 |
| -15 | 5254.9 |
| -14 | 5015.8 |
| -13 | 4788.9 |
| -12 | 4573.6 |
| -11 | 4369.3 |
| -10 | 4175.2 |
| -9 | 3990.9 |
| -8 | 3815.8 |
| -7 | 3649.4 |
| -6 | 3491.2 |
| -5 | 3340.7 |
| -4 | 3197.6 |
| -3 | 3061.5 |
| -2 | 2931.9 |
| -1 | 2808.5 |
| 0 | 2691.0 |

| Temp. °C | Ohms |
|----------|------|
|----------|------|

| | |
|-----------|---------------|
| 1 | 2579.1 |
| 2 | 2472.5 |
| 3 | 2370.9 |
| 4 | 2274.0 |
| 5 | 2181.6 |
| 6 | 2093.5 |
| 7 | 2009.5 |
| 8 | 1929.3 |
| 9 | 1852.7 |
| 10 | 1779.6 |
| 11 | 1709.8 |
| 12 | 1643.1 |
| 13 | 1579.4 |
| 14 | 1518.5 |
| 15 | 1460.3 |
| 16 | 1404.7 |
| 17 | 1351.4 |
| 18 | 1300.5 |
| 19 | 1251.8 |
| 20 | 1205.1 |
| 21 | 1160.5 |
| 22 | 1117.7 |
| 23 | 1076.8 |
| 24 | 1037.6 |
| 25 | 1000.0 |
| 26 | 964.0 |
| 27 | 929.5 |
| 28 | 896.4 |
| 29 | 864.6 |
| 30 | 834.2 |
| 31 | 804.9 |
| 32 | 776.9 |
| 33 | 750.0 |
| 34 | 724.1 |
| 35 | 699.3 |
| 36 | 675.5 |
| 37 | 652.6 |
| 38 | 630.6 |
| 39 | 609.5 |
| 40 | 589.2 |
| 41 | 569.6 |

| Temp. °C | Ohms |
|----------|------|
|----------|------|

| | |
|----|-------|
| 42 | 550.8 |
| 43 | 532.8 |
| 44 | 515.4 |
| 45 | 498.7 |
| 46 | 482.6 |
| 47 | 467.1 |
| 48 | 452.2 |
| 49 | 437.8 |
| 50 | 424.0 |
| 51 | 410.7 |
| 52 | 397.8 |
| 53 | 385.5 |
| 54 | 373.5 |
| 55 | 362.0 |
| 56 | 351.0 |
| 57 | 340.3 |
| 58 | 330.0 |
| 59 | 320.0 |
| 60 | 310.4 |
| 61 | 301.2 |
| 62 | 292.3 |
| 63 | 283.6 |
| 64 | 275.3 |
| 65 | 267.3 |
| 66 | 259.5 |
| 67 | 252.0 |
| 68 | 244.8 |
| 69 | 237.8 |
| 70 | 231.0 |
| 71 | 224.5 |
| 72 | 218.1 |
| 73 | 212.0 |
| 74 | 206.1 |
| 75 | 200.4 |
| 76 | 194.9 |
| 77 | 189.5 |
| 78 | 184.3 |
| 79 | 179.3 |
| 80 | 174.5 |
| 81 | 169.8 |
| 82 | 165.2 |
| 83 | 160.8 |

| Temp. °C | Ohms |
|----------|------|
|----------|------|

| | |
|-----|-------|
| 84 | 156.6 |
| 85 | 152.4 |
| 86 | 148.4 |
| 87 | 144.6 |
| 88 | 140.8 |
| 89 | 137.2 |
| 90 | 133.6 |
| 91 | 130.2 |
| 92 | 126.9 |
| 93 | 123.7 |
| 94 | 120.5 |
| 95 | 117.5 |
| 96 | 114.6 |
| 97 | 111.7 |
| 98 | 109.0 |
| 99 | 106.3 |
| 100 | 103.7 |
| 101 | 101.2 |
| 102 | 98.7 |
| 103 | 96.3 |
| 104 | 94.0 |
| 105 | 91.7 |
| 106 | 89.6 |
| 107 | 87.4 |
| 108 | 85.4 |
| 109 | 83.4 |
| 110 | 81.4 |
| 111 | 79.5 |
| 112 | 77.7 |
| 113 | 75.9 |
| 114 | 74.2 |
| 115 | 72.5 |
| 116 | 70.8 |
| 117 | 69.2 |
| 118 | 67.7 |
| 119 | 66.1 |
| 120 | 64.7 |
| 121 | 63.2 |
| 122 | 61.8 |
| 123 | 60.5 |
| 124 | 59.2 |
| 125 | 57.9 |

1K2A1 SERIES V

Thermistor

ORDERING INFORMATION

| Part Number | Description | Ω @25°C | MOQ |
|-------------|---------------------|----------------|--------|
| 1K2A1 | Series V Thermistor | 1000 | 1,000* |

* For quantities less than Minimum Order Quantity – Contact Distribution

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