



2.2K3A1I SERIES II THERMISTOR

SPECIFICATIONS

- Thermally conductive epoxy coating
- Ø 2.4 mm Maximum Diameter
- 30 AWG Solid Silver Plated Copper Leads with White PTFE Insulation
- Choice of 4 temperature tolerance classifications
- RoHS Compliant

The BetaCURVE Chip is Soldered to 30 AWG Solid Silver Plated Copper Leads with White PTFE Insulation. Device is Encapsulated in Stycast Epoxy Resin.



FEATURES

- Interchangeability
- Proven Stability and Reliability
- Rapid time response
- PTFE Insulated lead Wires
- Thermally Conductive Epoxy Coating
- Temperature range -40 °C to +125°C

APPLICATIONS

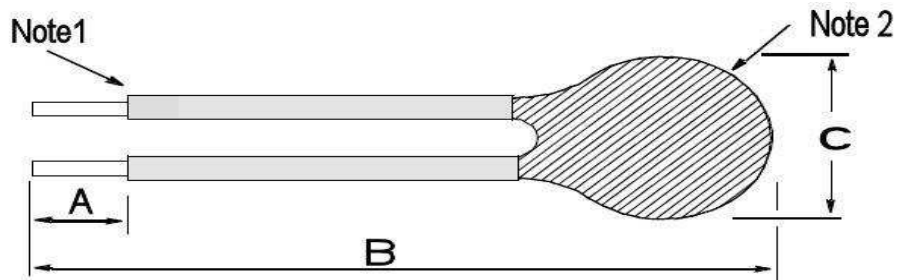
- Temperature sensing, control and compensation
- Tight Tolerance Instrumentation
- Assembly into probes for a wide variety of applications
- General Instrumentation applications

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PERFORMANCE SPECS

| Parameters | Units | Value |
|--|---------|-------|
| Resistance @ +25°C | Ohms | 2,252 |
| 2.2K3A1IA Resistance tolerance from 0°C to +70°C | °C | ±0.1 |
| 2.2K3A1IB Resistance tolerance from 0°C to +70°C | °C | ±0.2 |
| 2.2K3A1IC Resistance tolerance from 0°C to +70°C | °C | ±0.5 |
| 2.2K3A1ID Resistance tolerance from 0°C to +70°C | °C | ±1.0 |
| Alpha Value @ 25°C | %/°C | -4.39 |
| Beta Value 25/85 | K | 3976 |
| Tolerance on Beta Value 25/85 | % | ±0.5 |
| Time response in Liquids | Seconds | <1 |
| Dissipation Constant in still air | mW/°C | 0.85 |

MECHANICAL DETAILS



| | Dimensions | | |
|--------|---|----------|-----------|
| | A | B | C |
| | 10 ± 2mm | 76 ± 2mm | 2.4mm Max |
| Note 1 | 30AWG Solid Silver Plated Copper Leads with White PTFE Insulation | | |
| Note 2 | Brown Stycast 2850ft Epoxy | | |

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RESISTANCE V TEMPERATURE TABLE

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

| | |
|-----|-------|
| -40 | 75491 |
| -39 | 70663 |
| -38 | 66173 |
| -37 | 61996 |
| -36 | 58109 |
| -35 | 54489 |
| -34 | 51118 |
| -33 | 47975 |
| -32 | 45045 |
| -31 | 42312 |
| -30 | 39761 |
| -29 | 37380 |
| -28 | 35156 |
| -27 | 33077 |
| -26 | 31134 |
| -25 | 29317 |
| -24 | 27617 |
| -23 | 26026 |
| -22 | 24536 |
| -21 | 23140 |
| -20 | 21832 |
| -19 | 20606 |
| -18 | 19456 |
| -17 | 18377 |
| -16 | 17364 |
| -15 | 16413 |
| -14 | 15520 |
| -13 | 14681 |
| -12 | 13892 |
| -11 | 13150 |
| -10 | 12452 |
| -9 | 11795 |
| -8 | 11177 |
| -7 | 10595 |
| -6 | 10046 |
| -5 | 9529 |
| -4 | 9042 |
| -3 | 8582 |
| -2 | 8148 |
| -1 | 7739 |
| 0 | 7353 |
| 1 | 6988 |

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

| | |
|----|------|
| 2 | 6644 |
| 3 | 6318 |
| 4 | 6010 |
| 5 | 5719 |
| 6 | 5444 |
| 7 | 5183 |
| 8 | 4937 |
| 9 | 4703 |
| 10 | 4482 |
| 11 | 4273 |
| 12 | 4075 |
| 13 | 3886 |
| 14 | 3708 |
| 15 | 3539 |
| 16 | 3378 |
| 17 | 3226 |
| 18 | 3081 |
| 19 | 2944 |
| 20 | 2814 |
| 21 | 2690 |
| 22 | 2572 |
| 23 | 2460 |
| 24 | 2353 |
| 25 | 2252 |
| 26 | 2156 |
| 27 | 2064 |
| 28 | 1977 |
| 29 | 1893 |
| 30 | 1814 |
| 31 | 1739 |
| 32 | 1667 |
| 33 | 1598 |
| 34 | 1533 |
| 35 | 1471 |
| 36 | 1411 |
| 37 | 1354 |
| 38 | 1300 |
| 39 | 1248 |
| 40 | 1199 |
| 41 | 1152 |
| 42 | 1107 |
| 43 | 1064 |

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

| | |
|----|------|
| 44 | 1023 |
| 45 | 983 |
| 46 | 946 |
| 47 | 910 |
| 48 | 875 |
| 49 | 842 |
| 50 | 811 |
| 51 | 781 |
| 52 | 752 |
| 53 | 724 |
| 54 | 698 |
| 55 | 672 |
| 56 | 648 |
| 57 | 624 |
| 58 | 602 |
| 59 | 581 |
| 60 | 560 |
| 61 | 540 |
| 62 | 521 |
| 63 | 503 |
| 64 | 486 |
| 65 | 469 |
| 66 | 453 |
| 67 | 437 |
| 68 | 422 |
| 69 | 408 |
| 70 | 394 |
| 71 | 381 |
| 72 | 369 |
| 73 | 356 |
| 74 | 345 |
| 75 | 333 |
| 76 | 322 |
| 77 | 312 |
| 78 | 302 |
| 79 | 292 |
| 80 | 283 |
| 81 | 274 |
| 82 | 265 |
| 83 | 257 |
| 84 | 249 |
| 85 | 241 |

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

| | |
|-----|-----|
| 86 | 234 |
| 87 | 226 |
| 88 | 220 |
| 89 | 213 |
| 90 | 206 |
| 91 | 200 |
| 92 | 194 |
| 93 | 188 |
| 94 | 183 |
| 95 | 177 |
| 96 | 172 |
| 97 | 167 |
| 98 | 162 |
| 99 | 157 |
| 100 | 153 |
| 101 | 149 |
| 102 | 144 |
| 103 | 140 |
| 104 | 136 |
| 105 | 132 |
| 106 | 129 |
| 107 | 125 |
| 108 | 122 |
| 109 | 118 |
| 110 | 115 |
| 111 | 112 |
| 112 | 109 |
| 113 | 106 |
| 114 | 103 |
| 115 | 100 |
| 116 | 98 |
| 117 | 95 |
| 118 | 92 |
| 119 | 90 |
| 120 | 88 |
| 121 | 85 |
| 122 | 83 |
| 123 | 81 |
| 124 | 79 |
| 125 | 77 |

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ORDERING INFORMATION

| Part Number | Description | Ω @25°C | MOQ |
|-------------|----------------------|----------------|--------|
| 2.2K3A1IA | Series II Thermistor | 2,252 | 1,000* |
| 2.2K3A1IB | Series II Thermistor | 2,252 | 1,000* |
| 2.2K3A1IC | Series II Thermistor | 2,252 | 1,000* |
| 2.2K3A1ID | Series II Thermistor | 2,252 | 1,000* |

* For quantities less than Minimum Order Quantity – Contact Distribution

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