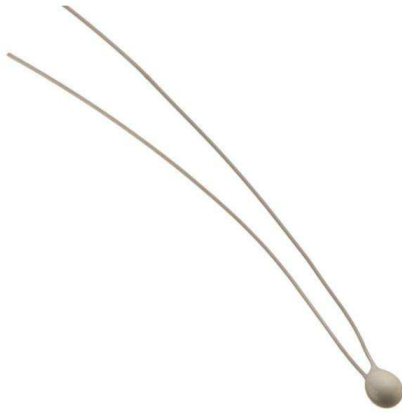




## GA30K5A1 SERIES I THERMISTORS

Thermally Conductive Epoxy Coating

Ø 2.4 mm Maximum Diameter

32 AWG Alloy 180 Leads

Four Temperature Tolerance Classifications Available

RoHS Compliant

BetaCURVE series I thermistors are small epoxy coated devices with solid tin-plated lead wires. The series I offers a choice of precision temperature tolerance classifications for a wide variety of customer applications, such as temperature measurements, temperature indication, temperature control, and thermal compensation.

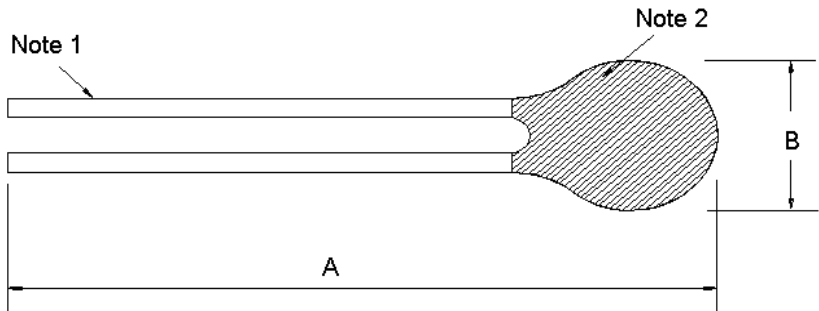
### FEATURES

- 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
- Custom probe assemblies available

### APPLICATIONS

- Temperature sensing, control and compensation
- Tight tolerance instrumentation
- General instrumentation applications

**MECHANICAL DETAILS**



**DIMENSIONS**

| A        | B           |
|----------|-------------|
| 76 ±2 mm | 2.4 mm max. |

**Note 1:** 32 AWG Solid Alloy 180 Leads

**Note 2:** White Stycast 2850ft Epoxy

**PERFORMANCE SPECS**

| Parameters                                       | Units   | Value  |
|--------------------------------------------------|---------|--------|
| Nominal Resistance at +25°C                      | Ohms    | 30,000 |
| GA30K5A1A Resistance Tolerance from 0°C to +70°C | °C      | ±0.1   |
| GA30K5A1B Resistance Tolerance from 0°C to +70°C | °C      | ±0.2   |
| GA30K5A1C Resistance Tolerance from 0°C to +70°C | °C      | ±0.5   |
| GA30K5A1D Resistance Tolerance from 0°C to +70°C | °C      | ±1.0   |
| Alpha Value at +25°C                             | %/°C    | 4.30   |
| Beta Value 25/85                                 | K       | 3942   |
| Tolerance on Beta Value 25/85                    | %       | ±0.5   |
| Time Response in Liquids                         | Seconds | <1     |
| Dissipation Constant in Still Air                | mW/°C   | 0.75   |

## RESISTANCE V TEMPERATURE TABLE

| Temp. °C | Ohms   | Temp. °C | Ohms  | Temp. °C | Ohms  | Temp. °C | Ohms |
|----------|--------|----------|-------|----------|-------|----------|------|
| -40      | 884198 | 2        | 86090 | 44       | 13799 | 86       | 3172 |
| -39      | 830463 | 3        | 81996 | 45       | 13274 | 87       | 3074 |
| -38      | 780301 | 4        | 78119 | 46       | 12772 | 88       | 2979 |
| -37      | 733457 | 5        | 74445 | 47       | 12292 | 89       | 2888 |
| -36      | 689693 | 6        | 70964 | 48       | 11831 | 90       | 2800 |
| -35      | 648790 | 7        | 67663 | 49       | 11391 | 91       | 2715 |
| -34      | 610546 | 8        | 64534 | 50       | 10968 | 92       | 2633 |
| -33      | 574773 | 9        | 61565 | 51       | 10564 | 93       | 2554 |
| -32      | 541299 | 10       | 58749 | 52       | 10176 | 94       | 2477 |
| -31      | 509964 | 11       | 56076 | 53       | 9805  | 95       | 2403 |
| -30      | 480620 | 12       | 53539 | 54       | 9449  | 96       | 2332 |
| -29      | 453130 | 13       | 51129 | 55       | 9107  | 97       | 2263 |
| -28      | 427367 | 14       | 48841 | 56       | 8780  | 98       | 2197 |
| -27      | 403213 | 15       | 46667 | 57       | 8466  | 99       | 2132 |
| -26      | 380560 | 16       | 44601 | 58       | 8164  | 100      | 2070 |
| -25      | 359305 | 17       | 42637 | 59       | 7875  | 101      | 2010 |
| -24      | 339357 | 18       | 40769 | 60       | 7597  | 102      | 1952 |
| -23      | 320627 | 19       | 38993 | 61       | 7331  | 103      | 1896 |
| -22      | 303035 | 20       | 37303 | 62       | 7075  | 104      | 1842 |
| -21      | 286506 | 21       | 35696 | 63       | 6829  | 105      | 1789 |
| -20      | 270969 | 22       | 34166 | 64       | 6593  | 106      | 1739 |
| -19      | 256362 | 23       | 32709 | 65       | 6366  | 107      | 1690 |
| -18      | 242622 | 24       | 31321 | 66       | 6148  | 108      | 1642 |
| -17      | 229694 | 25       | 30000 | 67       | 5939  | 109      | 1596 |
| -16      | 217526 | 26       | 28741 | 68       | 5738  | 110      | 1552 |
| -15      | 206069 | 27       | 27541 | 69       | 5544  | 111      | 1509 |
| -14      | 195278 | 28       | 26398 | 70       | 5358  | 112      | 1467 |
| -13      | 185111 | 29       | 25307 | 71       | 5179  | 113      | 1427 |
| -12      | 175529 | 30       | 24268 | 72       | 5007  | 114      | 1388 |
| -11      | 166495 | 31       | 23276 | 73       | 4841  | 115      | 1350 |
| -10      | 157975 | 32       | 22329 | 74       | 4682  | 116      | 1314 |
| -9       | 149937 | 33       | 21426 | 75       | 4528  | 117      | 1278 |
| -8       | 142352 | 34       | 20564 | 76       | 4381  | 118      | 1244 |
| -7       | 135191 | 35       | 19741 | 77       | 4239  | 119      | 1211 |
| -6       | 128429 | 36       | 18955 | 78       | 4102  | 120      | 1178 |
| -5       | 122041 | 37       | 18204 | 79       | 3970  | 121      | 1147 |
| -4       | 116006 | 38       | 17487 | 80       | 3843  | 122      | 1117 |
| -3       | 110301 | 39       | 16801 | 81       | 3721  | 123      | 1087 |
| -2       | 104907 | 40       | 16146 | 82       | 3603  | 124      | 1059 |
| -1       | 99806  | 41       | 15519 | 83       | 3489  | 125      | 1031 |
| 0        | 94980  | 42       | 14920 | 84       | 3380  |          |      |
| 1        | 90413  | 43       | 14347 | 85       | 3274  |          |      |

## ORDERING INFORMATION

| Part Number | Description         | $\Omega$ @25°C | MOQ*  |
|-------------|---------------------|----------------|-------|
| GA30K5A1A   | Series I thermistor | 30,000         | 1,000 |
| GA30K5A1B   | Series I thermistor | 30,000         | 1,000 |
| GA30K5A1C   | Series I thermistor | 30,000         | 1,000 |
| GA30K5A1D   | Series I thermistor | 30,000         | 1,000 |

\* For quantities less than MOQ (Minimum Order Quantity) contact Distribution

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