

## 1. Electrical Characteristics

|     | Item                            | Symbol | Test conditions  | Unit  | Specification |
|-----|---------------------------------|--------|--|-------|---------------|
| 1.1 | Zero Power Resistance at 25°C   | R25    | Ta=25±0.5°C Test Power≤0.1mW   | KΩ    | 47KΩ±5%       |
| 1.2 | B-value                         | B25/50 | $B=[(Ta \times Tb)/(Tb - Ta)] \times \ln(Ra/Rb)$<br>Ta=25°C±0.01°C<br>Tb=50°C±0.01°C | K     | 4300±10%      |
| 1.3 | Thermal dissipation Coefficient | δ      | In still air   | mW/°C | about 4.5     |
| 1.4 | Thermal time constant           | τ      | In still air   | sec   | about 20      |
| 1.5 | Insulation resistance           | /      | 1000V/DC 1min  | MΩ    | ≥500          |
| 1.6 | Operating temperature           | /      | /  | °C    | -30°C ~ 125°C |
| 1.7 | Maximum rated power             | Pmax   | /  | mW    | 450           |

## 2. Reliability

|     | Item                         | Test conditions and methods   | Technical requirements                     |
|-----|------------------------------|---|--|
| 2.1 | Terminal strength            | Pull: wire diameter(mm) pulling force (N)<br>0.35<d≤0.5 5,0.5<d≤0.8 10<br>time: 10±1 sec              | No obvious damage,<br>R25 ΔR/R≤±3%         |
| 2.2 | Solderability                | temperature : 245±5°C<br>for 2-3sec   | the coverage area should be more than 95%. |
| 2.3 | Welding heat resistant       | Tin pan temperature : 260±5°C, immersion depth is apart from the body resistance 6mm ,<br>time:5±1sec | R25 ΔR/R≤±3%,                              |
| 2.4 | Steady humidity and heat     | Temp: 40°C±2°C,<br>humidity: 93±2%,<br>Time : 500hrs  | R25 ΔR/R≤±3%,                              |
| 2.5 | Rapid changes in temperature | -30°C30min→25°C5min→1<br>25°C30min→25°C5min ,<br>5cycles  | R25 ΔR/R≤±3%                               |
| 2.6 | High temperature storage     | Temp : 125°C±5°C,<br>Time :1000hrs  | R25 ΔR/R≤±5%                               |
| 2.7 | Low temperature storage      | Temp : -30°C,<br>Time :1000hrs  | R25 ΔR/R≤±5%                               |

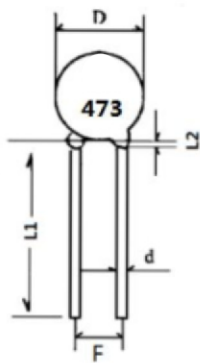
### 3. Matters need attention

- 3.1 This product uses: Temperature measurement and control;
- 3.2 When the soldering iron welding, the welding place at least 2 mm space from coating layer and the welding temperature should be lower than 360 °C, welding time < 3 ses
- 3.3 Storage temp: -10°C ~ 40°C; storage humidity : ≤75% RH;
- 3.4 Avoid air corrosion or sunlight
- 3.5 Remake sealed storage after package opening. The storage life is 1 year. Exceed storage period, can re-inspect per as the items stipulated in the standard. If it meets the requirements, it can still be used.

### 4. Certificate

- 4.1 Quality Management System ISO9001: 2015  
IATF16949: 2016
- 4.2 Environment Management System ISO14001:2015
- 4.3 Environment Test Report RoHS
- 4.4 CQC Safe Certification
- 4.5 TUV Certificate

### 5. Dimensions(mm)



| D    | L1    | L2     | F       | T    | d         |
|------|-------|--------|---------|------|-----------|
| Max6 | Min25 | Max2.5 | 2.5±0.5 | Max4 | 0.45±0.05 |

R25=47KΩ

B25/50=4300K

| T   | R       | T  | R       | T  | R      | T  | R      | T  | R     | T   | R     |
|-----|---------|----|---------|----|--------|----|--------|----|-------|-----|-------|
| -30 | 966.79  | -4 | 210.972 | 22 | 54.1   | 48 | 17.134 | 74 | 5.796 | 100 | 2.35  |
| -29 | 904.939 | -3 | 199.386 | 23 | 51.604 | 49 | 16.424 | 75 | 5.566 | 101 | 2.18  |
| -28 | 848.688 | -2 | 188.475 | 24 | 49.24  | 50 | 15.744 | 76 | 5.346 | 102 | 2.118 |
| -27 | 797.197 | -1 | 178.203 | 25 | 47     | 51 | 15.093 | 77 | 5.136 | 103 | 2.059 |
| -26 | 749.795 | 0  | 166.38  | 26 | 44.875 | 52 | 14.469 | 78 | 4.935 | 104 | 2.003 |
| -25 | 705.939 | 1  | 159.434 | 27 | 42.86  | 53 | 13.872 | 79 | 4.743 | 105 | 1.95  |
| -24 | 665.191 | 2  | 150.87  | 28 | 40.947 | 54 | 13.3   | 80 | 4.56  | 106 | 1.901 |
| -23 | 627.192 | 3  | 142.811 | 29 | 39.131 | 55 | 12.752 | 81 | 4.384 | 107 | 1.854 |
| -22 | 591.649 | 4  | 135.228 | 30 | 37.405 | 56 | 12.228 | 82 | 4.217 | 108 | 1.809 |
| -21 | 558.319 | 5  | 128.092 | 31 | 35.764 | 57 | 11.725 | 83 | 4.057 | 109 | 1.768 |
| -20 | 527.001 | 6  | 121.376 | 32 | 34.204 | 58 | 11.243 | 84 | 3.905 | 110 | 1.729 |
| -19 | 497.529 | 7  | 115.056 | 33 | 32.719 | 59 | 10.782 | 85 | 3.76  | 111 | 1.692 |
| -18 | 469.758 | 8  | 109.106 | 34 | 31.305 | 60 | 10.34  | 86 | 3.621 | 112 | 1.658 |
| -17 | 443.567 | 9  | 103.504 | 35 | 29.958 | 61 | 9.916  | 87 | 3.488 | 113 | 1.627 |
| -16 | 418.851 | 10 | 98.229  | 36 | 28.675 | 62 | 9.51   | 88 | 3.362 | 114 | 1.597 |
| -15 | 395.518 | 11 | 93.261  | 37 | 27.451 | 63 | 9.122  | 89 | 3.242 | 115 | 1.57  |
| -14 | 373.486 | 12 | 88.58   | 38 | 26.284 | 64 | 8.749  | 90 | 3.127 | 116 | 1.545 |
| -13 | 352.681 | 13 | 84.168  | 39 | 25.17  | 65 | 8.393  | 91 | 3.018 | 117 | 1.522 |
| -12 | 333.036 | 14 | 80.008  | 40 | 24.107 | 66 | 8.051  | 92 | 2.914 | 118 | 1.501 |
| -11 | 314.489 | 15 | 76.084  | 41 | 23.092 | 67 | 7.724  | 93 | 2.815 | 119 | 1.482 |
| -10 | 296.983 | 16 | 72.383  | 42 | 22.122 | 68 | 7.411  | 94 | 2.721 | 120 | 1.465 |
| -9  | 280.463 | 17 | 68.888  | 43 | 21.195 | 69 | 7.111  | 95 | 2.631 | 121 | 1.45  |
| -8  | 264.88  | 18 | 65.588  | 44 | 20.309 | 70 | 6.825  | 96 | 2.546 | 122 | 1.437 |
| -7  | 250.184 | 19 | 62.471  | 45 | 19.461 | 71 | 6.55   | 97 | 2.465 | 123 | 1.426 |
| -6  | 236.33  | 20 | 59.524  | 46 | 18.651 | 72 | 6.287  | 98 | 2.388 | 124 | 1.417 |
| -5  | 223.274 | 21 | 56.737  | 47 | 17.876 | 73 | 6.036  | 99 | 2.315 | 125 | 1.41  |

