















#### **Description**

24T Series are the fuses set the industry standard for performance, reliability and quality. The solder-free design provides excellent on-off and temperature cycling characteristics during use and also makes our SMD fuses more heat and shock tolerant than typical subminiature fuses.

#### **Features**

Rapid interruption of excessive current Compatible with reflow and wave solder One time positive disconnect Lead Free and Halogen free material

#### Agency Approvals.

| Safety<br>Agency       | Agency File<br>Number | Ampere Range<br>Volt@I.R.ABILITY   |  |
|------------------------|-----------------------|--|--|
| <b>c%11</b> us E485357 |                       | 100mA-11A 250V AC@100A<br>100mA-11A 350V AC@50A<br>100mA-11A125VAC/DC@100A |  |
| coc                    | CQC18012207<br>970    | 500mA-2A 250V AC@100A  |  |
| CQC19012215<br>909     |                       | 1A,2A 350V AC@35A  |  |
| Δ                      | R 50357215            | 250mA-10A 250V AC@100A<br>500mA-3.15A 350VAC@50A                           |  |

#### **Electrical Characteristics for Series**

| Rating Current | 100% of Ampere | 200% of Ampere | 1000% of      |
|----------------|----------------|----------------|---------------|
|                | Rating         | Rating Max.    | Ampere Rating |
| 100mA~10A      | 4 Hour, Min    | 120sec.        | 0.2ms~150ms   |

**Electrical Characteristic Specifications by Item** 

| Part NO | Rated            |       | Melting Integral Alpha<br>10In min(A2S) Mark | Alpha  | Typical<br>Voltage Drop<br>(mV) | Approvals |     |       |             |             |   |
|---------|------------------|-------|--|--------|---------------------------------|-----------|-----|-------|-------------|-------------|---|
|         | Current(A)       |       |  | Mark   |                                 | TUV       | CQC | cURus | TUV<br>350V | CQC<br>350V |   |
| 24T0250 |                  | 250mA |  | 0.0986 | Α                               | 1400      | •   |       | •           |             |   |
| 24T0315 |                  | 315mA |  | 0.1633 | С                               | 1300      | •   |       | •           |             |   |
| 24T0500 |                  | 500mA |  | 0.4175 | D                               | 900       | •   | •     | •           | •           |   |
| 24T0630 |                  | 630mA |  | 0.8800 | F                               | 800       | •   |       | •           |             |   |
| 24T0800 |                  | 800mA |  | 1.1520 | J                               | 600       | •   |       | •           | •           |   |
| 24T1100 |                  | 1A    |  | 1.5150 | Н                               | 500       | •   | •     | •           | •           | • |
| 24T1125 |                  | 1.25A | 50A@350VAC                                   | 2.9980 | ı                               | 400       | •   | •     | •           |             |   |
| 24T1160 | 350VAC<br>250VAC | 1.6A  | 100A @250VAC                                 | 3.8000 | N                               | 300       | •   | •     | •           |             |   |
| 24T1200 | 125VAC<br>125VDC | 2A    | 100A@125V AC                                 | 6.4000 | 0                               | 300       | •   | •     | •           | •           | • |
| 24T1250 |                  | 2.5A  | 100A @125VDC                                 | 7.9500 | Р                               | 300       | •   |       | •           |             |   |
| 24T1315 |                  | 3.15A |  | 28.360 | R                               | 300       | •   |       | •           | •           |   |
| 24T1400 |                  | 4A    |  | 30.990 | U                               | 300       | •   |       | •           |             |   |
| 24T1500 |                  | 5A    |  | 54.010 | V                               | 300       | •   |       | •           |             |   |
| 24T1630 |                  | 6.3A  |  | 94.890 | W                               | 300       | •   |       | •           |             |   |
| 24T1800 |                  | 8A    |  | 174.96 | Z                               | 220       | •   |       | •           |             |   |
| 24T2100 |                  | 10A   |  | 290.01 | Y                               | 220       | •   |       | •           |             |   |

<sup>\*</sup> DC Interrupting Rating (Measured at rated voltage, time constant of less than 50 microseconds, battery source)

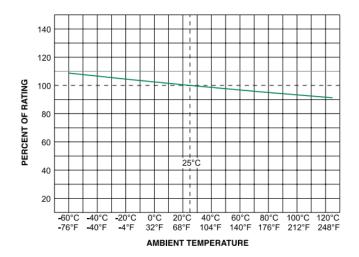
<sup>\*</sup> DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25 degrees

# 6125 Slow-Blow SMD Fuses

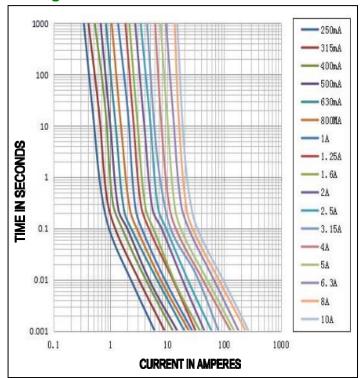


## **Temperature Re-rating Curve**

- \* Normal ambient temperature: 23±3°C
- \* Operating temperature: -55 ~+125℃ with proper correction factor applied

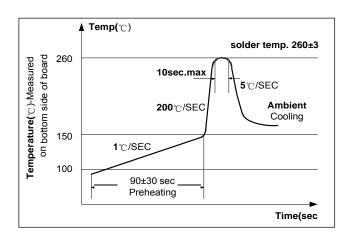


## **Average Time Current Curves**



# **Soldering Parameters**

| Reflow Condition                | Pb-Free assembly                       |                |  |
|---------------------------------|--|----------------|--|
|                                 | -Temperature Min(T <sub>s(min)</sub> ) | <b>150</b> ℃   |  |
| Pre Heat                        | -Temperature Max(T <sub>s(max)</sub> ) | <b>200</b> ℃   |  |
|                                 | -Time (Min to Max)(t <sub>s</sub> )    | 60-180 secs    |  |
| Average ramp up rate            | 5℃/second max                          |                |  |
| Ts(max)to T <sub>L</sub> Ramp-ι | 5°C/second max                         |                |  |
| Reflow                          | -Temperature(TL)(liquidus)             | <b>217</b> ℃   |  |
|                                 | -Temperature(t <sub>L</sub> )          | 60-150 seconds |  |
| Time within 5℃ of act           | 20-40 seconds                          |                |  |
| Ramp-down Rate                  | 5°C/second max                         |                |  |
| Time 25°C to pesk Te            | 8 minutes Max.                         |                |  |
| Do not exceed                   | <b>260</b> ℃                           |                |  |



# Type 24T 6125 Slow-Blow SMD Fuses











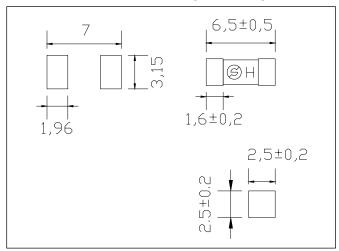


#### **Product Characteristics**

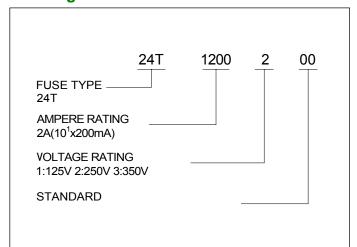
| Materials                                   | Body: Ceramic<br>Terminations: Gold-plated Caps                    |  |
|---|--|--|
| Product Marking                             | Brand, Amperage Rating   |  |
| Operating<br>Temperature                    | -55°C to 125°C   |  |
| Moisture<br>Sensitivity Level               | Level 1, J-STD-020   |  |
| Solderability                               | MIL-STD-202, Method 208  |  |
| Insulation<br>Resistance (after<br>Opening) | MIL-STD-202, Method 302, Test Condition<br>A (10,000 ohms minimum) |  |

| Thermal Shock                   | MIL-STD-202, Method 107, Test<br>Condition B, 5 cycles, -65°C to<br>125°C, 15 minutes @ each extreme                                 |  |
|---------------------------------|--|--|
| Mechanical Shock                | MIL-STD-202, Method 213, Test I:<br>Deenergized. 100G's pk amplitude,<br>sawtooth wave 6ms duration, 3<br>cycles XYZ+xyz = 18 shocks |  |
| Vibration                       | MIL-STD-202, Method 201: 0.03"<br>amplitude, 10-55 Hz in 1 min. 2hrs<br>each XYZ=6hrs  |  |
| Moisture Resistance             | MIL-STD-202, Method 106, 10 cycles   |  |
| Salt Spray                      | MIL-STD-202, Method 101, Test<br>Condition B (48hrs)   |  |
| Resistance to Soldering<br>Heat | MIL-STD-202, Method 210, Test condition B (10 sec at 260°C)  |  |

# **Mechanical Dimensions (Unit:mm)**



# **Ordering Information**



**Packaging** 

| Packaging Option | Packaging Specification | Quantity |
|------------------|-------------------------|----------|
| 24T              | tape-and-reel           | 1000PCS  |