400M Series

0603 Low Resistance Fast Acting Fuse









Description

The 400M Series is an 0603 fast acting fuse that is best suited for applications that require relatively low resistance. The part is 100% Lead-free, RoHS compliant, and Halogen-free fuse. It is designed to provide over-current protection to circuits that operate under high operating temperatures of up to 150°C.

Features and Benefits

- Operating temperature from -55°C to 150°C
- 100% Lead-free, RoHS compliant, and Halogenfree
- Suitable for both leaded and lead-free soldering

Applications

■ Burn-in Test

Additional Information







Resources

Accessories

Samples

Electrical Characteristics

| % of Ampere Rating | Opening Time at 25°C |
|--------------------|----------------------|
| 100% | 4 Hours Minimum |
| 200% | 5 Seconds Maximum |

Electrical Specifications by Item

| Ampere Rating (A) | Amp Code | Max. Voltage Rating (V) | Interrupting Rating | Nominal Resistance (Ohms) ¹ | Nominal Melting l ² t (A ² Sec.) ² | Nominal Voltage Drop at Rated Current (mV) | Nominal Power Dissipation at Rated Current (W) |
|----------------------|----------|----------------------------|------------------------|---|---|--|--|
| 0.5 | 0025 | 5 | 50A @ 5VDC | 0.325 | 0.00169 | 189 | 0.095 |
| 1.5 | 0026 | 5 | | 0.095 | 0.03 | 161 | 0.242 |

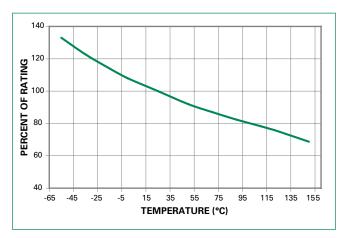
Notes:

- 1. Cold resistance measured at less than 10% of rated current at 23°C.
- 2. I2t values stated for 1msec opening time.



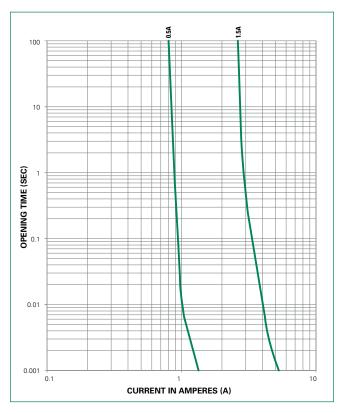
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Temperature Re-rating Curve



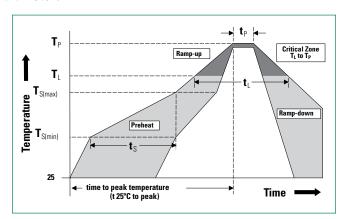
Note: Re-rating depicted in this curve is in addition to the standard re-rating of 20% for continuous operation.

Average Time Current Curves



Soldering Parameters

| Reflow Cond | dition | Pb – free assembly | |
|--|---|--------------------|--|
| Pre Heat | - Temperature Min (T _{s(min)}) | 150°C | |
| | -Temperature Max (T _{s(max)}) | 200°C | |
| | -Time (Min to Max) (t _s) | 60 – 180 seconds | |
| Average Ramp-up Rate (Liquidus Temp (T _L) to peak) | | 5°C/second max. | |
| T _{S(max)} to T _L - Ramp-up Rate | | 5°C/second max. | |
| Reflow | -Temperature (T _L) (Liquidus) | 217°C | |
| | -Temperature (t _L) | 60 - 150 seconds | |
| Peak Temperature (T _P) | | 260+0/-5 °C | |
| Time within 5°C of actual peak Temperature (tp) | | 20 - 40 seconds | |
| Ramp-down Rate | | 5°C/second max. | |
| Time 25°C to peak Temperature (T _P) | | 8 minutes max. | |
| Do not exceed | | 260°C | |



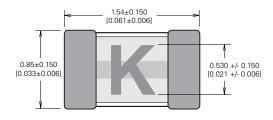


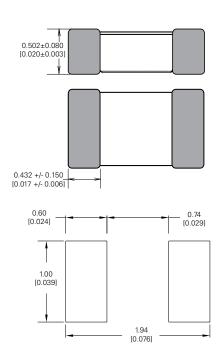
Product Characteristics

| Materials | Body: Advanced Ceramic Terminations: Ag/Ni/Sn (100% Lead-free) Element Cover Coating: Lead-free Glass |
|-------------------------------|---|
| Moisture Sensitivity Level | IPC/JEDEC J-STD-020C, Level 1 |
| Solderability | IPC/ECA/JEDEC J-STD-002B, Condition B |
| Humidity Test | MIL-STD-202, Method 103B, Conditions D |
| Resistance to Solder Heat | MIL-STD-202, Method 210F, Condition B |

| Moisture Resistance | MIL-STD-202, Method 106G |
|---------------------------------|---|
| Thermal Shock | MIL-STD-202, Method 107,G Condition B-3 |
| Mechanical Shock | MIL-STD-202, Method 213B, Condition A |
| Vibration | MIL-STD-202, Method 201A |
| Vibration, High Frequency | MIL-STD-202, Method 204D, Condition D |
| Dissolution of Metallization | IPC/ECA/JEDEC J-STD-002B, Condition D |
| Terminal Strength | IEC 60127-4 |

Dimensions mm (inches)

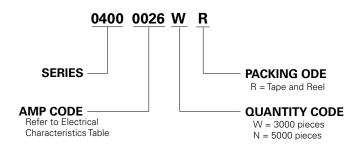




Part Marking System

| Amp Code | Marking Code |
|----------|--------------|
| 0025 | F |
| 0026 | K |

Part Numbering System



Packaging

| Packaging Option | Form Factor | Packaging Specification | Quantity | Quantity & Packaging Code |
|-------------------|---------------|-------------------------|----------|---------------------------|
| 8mm Tape and Reel | Surface Mount | EIA-481, IEC 60286-3 | 3000 | WR |
| 8mm Tape and Reel | Surface Mount | EIA-481, IEC 60286-3 | 5000 | NR |

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