

### 234 Series, 5×20 mm, Medium-Acting Fuse



#### Description

5×20mm medium-acting glass/ceramic body cartridge fuse designed to UL specification.

#### Features

- Designed to UL/CSA/ANCE 248 Standard
- Glass body for 1-3.5A, Ceramic body for 4-10A
- Available in cartridge and axial lead format
- RoHS compliant and lead-free

#### Applications

Used as supplementary protection in appliance or utilization equipment to provide individual protection for components or internal circuits.

#### Additional Information



**Datasheet**



**Resources**



**Samples**

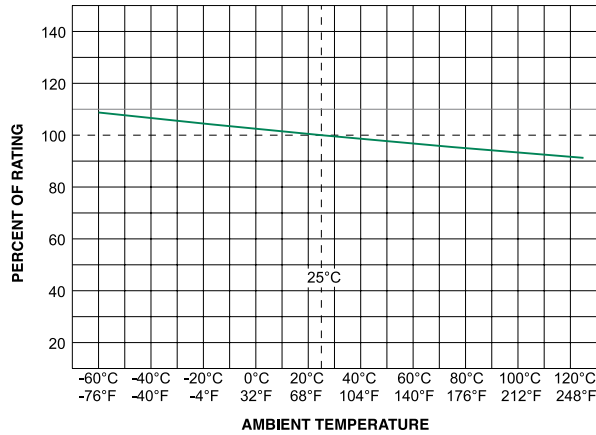
#### Electrical Characteristics for Series

| % of Ampere Rating | Ampere Rating | Opening Time               |
|--------------------|---------------|----------------------------|
| 100%               | 1 – 3.5       | 4 hours, Minimum           |
|                    | 4 – 10        | 1 hour, Minimum            |
| 135%               | 1 – 3.5       | 3 sec., Min; 1 hr. Max     |
|                    | 4 – 10        | 3 sec., Min; 1 hr. Max     |
| 200%               | 1 – 3.5       | 400ms., Min; 2.25 sec. Max |
|                    | 4 – 10        | 400ms., Min; 4 sec. Max    |

#### Electrical Characteristic Specification by Item

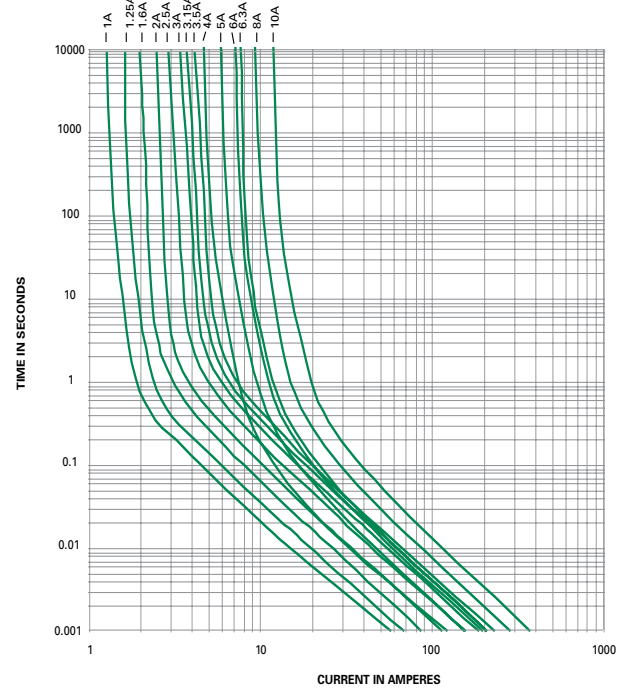
| Amp Code | Ampere Rating (A) | Voltage Rating (V) | Interrupting Rating                | Nominal Cold Resistance (Ohms) | Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec) | Agency Approvals |    |    |   |     |
|----------|-------------------|--------------------|------------------------------------|--------------------------------|-------------------------------------------------------|------------------|----|----|---|-----|
|          |                   |                    |                                    |                                |                                                       | CE               | UL | SP | K | PSE |
| 001.     | 1                 | 250                | 100A @ 250 VAC<br>10000A @ 125 VAC | 0.1750                         | 1.97500                                               | x                | x  | x  | x | x   |
| 1.25     | 1.25              | 250                |                                    | 0.1262                         | 2.06000                                               | x                | x  | x  | x | x   |
| 01.6     | 1.6               | 250                |                                    | 0.0884                         | 6.14000                                               | x                | x  | x  | x | x   |
| 002.     | 2                 | 250                |                                    | 0.0684                         | 9.97000                                               | x                | x  | x  | x | x   |
| 02.5     | 2.5               | 250                |                                    | 0.0521                         | 17.04500                                              | x                | x  | x  | x | x   |
| 003.     | 3                 | 250                |                                    | 0.0431                         | 26.2400                                               | x                | x  | x  | x | x   |
| 3.15     | 3.15              | 250                |                                    | 0.0380                         | 29.79500                                              | x                | x  | x  | x | x   |
| 03.5     | 3.5               | 250                |                                    | 0.0322                         | 36.27500                                              | x                | x  | x  | x | x   |
| 004.     | 4                 | 250                | 200A @ 250 VAC<br>10000A @ 125 VAC | 0.0304                         | 10.37000                                              | x                | x  | x  | x | x   |
| 005.     | 5                 | 250                |                                    | 0.0214                         | 20.64500                                              | x                | x  | x  | x | x   |
| 006.     | 6                 | 250                |                                    | 0.0194                         | 33.01500                                              | x                | x  | x  | x | x   |
| 06.3     | 6.3               | 250                |                                    | 0.0168                         | 37.68500                                              | x                | x  | x  | x | x   |
| 008.     | 8                 | 250                |                                    | 0.0144                         | 80.67500                                              | x                | x  | x  | x | x   |
| 010.     | 10                | 250                |                                    | 0.0107                         | 51.40000                                              | x                | x  | x  | x | x   |

### Temperature Re-rating Curve

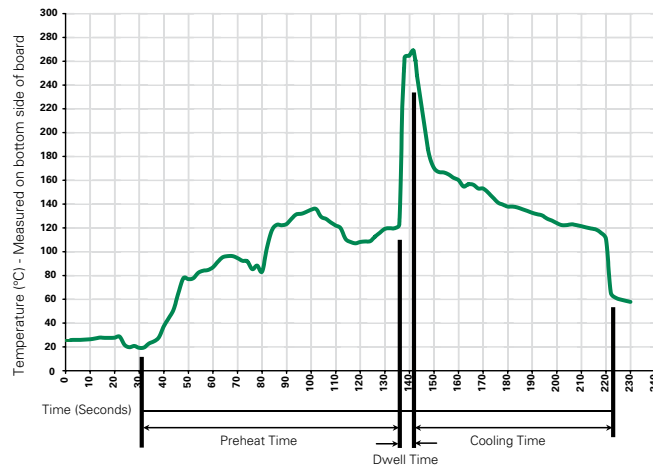


Note:  
Rerating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

### Average Time Current Curves



### Soldering Parameters - Wave Soldering



### Recommended Process Parameters:

| Wave Parameter                           | Lead-Free Recommendation          |
|------------------------------------------|-----------------------------------|
| <b>Preheat:</b>                          |                                   |
| (Depends on Flux Activation Temperature) | (Typical Industry Recommendation) |
| Temperature Minimum:                     | 100°C                             |
| Temperature Maximum:                     | 150°C                             |
| Preheat Time:                            | 60-180 seconds                    |
| <b>Solder Pot Temperature:</b>           | 260°C Maximum                     |
| <b>Solder Dwell Time:</b>                | 2-5 seconds                       |

### Recommended Hand-Solder Parameters:

Solder Iron Temperature: 350°C +/- 5°C  
Heating Time: 5 seconds max.

**Note: These devices are not recommended for IR or Convection Reflow process.**

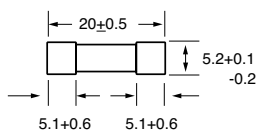
### Product Characteristics

|                          |                                                                                                                          |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>Materials</b>         | Body: Glass(1A-3.5A), Ceramic(4A-10A)<br>Cap: Nickel-plated brass<br>Leads: Tin-plated Copper<br>Filter: Sand (4A – 10A) |
| <b>Terminal Strength</b> | MIL-STD-202, Method 211, Test Condition A                                                                                |
| <b>Solderability</b>     | MIL-STD-202 Method 208                                                                                                   |
| <b>Product Marking</b>   | Cap 1: Brand logo, current and voltage rating<br>Cap 2: Series and agency approval markings                              |
| <b>Packaging</b>         | Available in Bulk (V=5, H=100, M=1000 pcs/pkg) or on Tape/Reel (MRET1=1000 pcs/reel)                                     |

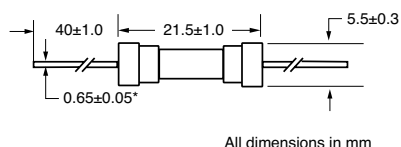
|                              |                                                                                                 |
|------------------------------|-------------------------------------------------------------------------------------------------|
| <b>Operating Temperature</b> | –55°C to +125°C                                                                                 |
| <b>Thermal Shock</b>         | MIL-STD-202, Method 107, Test Condition B: (5 cycles –65°C to +125°C)                           |
| <b>Vibration</b>             | MIL-STD-202 Method 201                                                                          |
| <b>Humidity</b>              | MIL-STD-202, Method 103, Test Condition A. high RH (95%) and elevated temp (40°C) for 240 hours |
| <b>Salt Spray</b>            | MIL-STD-202, Method 101, Test Condition B                                                       |

### Dimensions

0234 000P

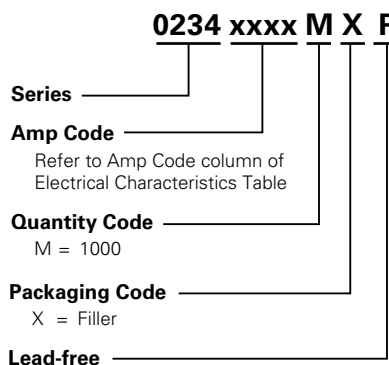


0234 000XEP



Notes:  
\* Ratings above 6.3A have 0.8±0.05 diameter lead.

### Part Numbering System



### Packaging

| Packaging Option  | Packaging Specification | Quantity | Quantity & Packaging Code | Taping Width     |
|-------------------|-------------------------|----------|---------------------------|------------------|
| <b>234 Series</b> |                         |          |                           |                  |
| Bulk              | N/A                     | 1000     | MX                        | N/A              |
| Bulk              | N/A                     | 1000     | MXE                       | N/A              |
| Reel and Tape     | EIA 296-E               | 1000     | MRET1                     | T1=53mm (2.087") |