Special Application Fuses
PICO® 259 Series Safe-T-Plus Fuse for Hazardous Locations

PICO® 259 Series Safe-T-Plus Fuse

Description
The Safe-T-Plus 259 Series offers a range of encapsulated fuses designed to enable greater safety for operating electronic equipment within potentially explosive environments. Originally designed to serve the needs of gas plants, petrochemical and processing industries, these fuses are certified for use within intrinsically safe apparatus with ATEX and IECEx certifications.

The fuse design and its encapsulant are suitable for use in intrinsically safe apparatus and associated apparatus for voltage not exceeding 125V rms (190V peak).

Agency Approvals

<table>
<thead>
<tr>
<th>Agency</th>
<th>Agency File Number</th>
<th>Ampere Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseefa02ATEX0071U</td>
<td>0.062A - 5A</td>
<td></td>
</tr>
<tr>
<td>IECEx BAS 10.0098U</td>
<td>0.062A - 5A</td>
<td></td>
</tr>
<tr>
<td>E10480 E358130</td>
<td>0.062A - 5A</td>
<td></td>
</tr>
</tbody>
</table>

Electrical Characteristics for Series

<table>
<thead>
<tr>
<th>% of Ampere Rating</th>
<th>Opening Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>4 Hours, Minimum</td>
</tr>
<tr>
<td>200%</td>
<td>5 Seconds, Maximum</td>
</tr>
</tbody>
</table>

Features

- Encapsulated and sealed (1mm minimum)
- 0.062A - 5A range options
- Designed to operate within environments where there is danger of gas explosion from faulty circuits
- ATEX and IECEx certified components
- RoHS compliant
- Suitable for use in Class I, Groups A, B, C and D; Class II, Groups E, F and G; Class III and Class I, Zone 0, AEx ia IIC Hazardous Locations.
- Suitable for use in Gas, Zone 0 Hazardous Locations per IEC and EN 60079 Series

Applications

- Testing, measuring or processing electronic and electrical equipment

Reference Standards

<table>
<thead>
<tr>
<th>Agency</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATEX</td>
<td>EN 60079-0, EN 60079-11</td>
</tr>
<tr>
<td>IECEx</td>
<td>IEC 60079-0, IEC 60079-11</td>
</tr>
<tr>
<td>UL</td>
<td>UL 913, UL 60079-0, UL 60079-11</td>
</tr>
</tbody>
</table>

Additional Information

- Datasheet
- Resources
- Samples

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Revised: 06.10/13/20
**PICO® 259 Series Safe-T-Plus Fuse for Hazardous Locations**

Special Application Fuses

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### Product Characteristics

**Materials**
- Body: Polyamide
- Terminals - Tin Plated Copper Alloy
- Max. operating temperature of materials 130°C

**Operating Temperature**
- Operating temperature depends on fuse rating and max. allowed fuse surface temperature. (Consider re-rating)

**Thermal Shock**
- Withstands 5 cycles of –55°C to 125°C

**Vibration**
- Per MIL-STD-202, Method 201

**Insulation Resistance (After Opening)**
- Greater than 10,000 ohms

### Average Time Current Curves

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**Temperature Re-rating Curve**

Note:
- 1. Re-rating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

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Soldering Parameters

Recommended Process Parameters:

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

Recommended Hand Soldering 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.

Dimensions

Series
0259.062M

AMP Code
The dot is positioned before the Packaging Suffix with whole ratings and within the numbering sequence for fractional ratings. Refer to Amp Code column in the Electrical Specifications table.

Packaging Code
M = Bulk pack, 1000 pcs
T = Bulk pack, 10 pcs

Part Numbering System

Example:
1 amp product is 0259.001M (.062 amp product shown).

Packaging

<table>
<thead>
<tr>
<th>Packaging Option</th>
<th>Packaging Specification</th>
<th>Quantity</th>
<th>Quantity &amp; Packaging Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk</td>
<td>N/A</td>
<td>1000</td>
<td>M = Bulk 1000 pieces, T = Bulk 10 pieces</td>
</tr>
<tr>
<td>Bulk</td>
<td>N/A</td>
<td>10</td>
<td>Please refer to available quantities above in “Part Numbering System”</td>
</tr>
</tbody>
</table>

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