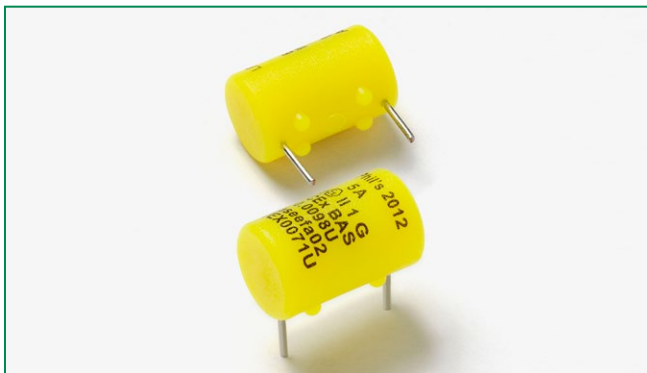


PICO® 259 Series Safe-T-Plus Fuse



Agency Approvals

| Agency | Agency File Number | Ampere Range |
|--------|--------------------|--------------|
| | Baseefa02ATEX0071U | 0.062A - 5A |
| | IECEX BAS 10.0098U | 0.062A - 5A |
| | E10480 E358130 | 0.062A - 5A |

Electrical Characteristics for Series

| % of Ampere Rating | Opening Time |
|--------------------|--------------------|
| 100% | 4 Hours, Minimum |
| 200% | 5 Seconds, Maximum |

Reference Standards

| Agency | Standards |
|--------|---------------------------------|
| ATEX | EN 60079-0, EN 60079-11 |
| IECEX | IEC 60079-0, IEC 60079-11 |
| UL | UL 913, UL 60079-0, UL 60079-11 |

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).

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

Additional Information



Datasheet



Resources



Samples

Electrical Specifications by Items

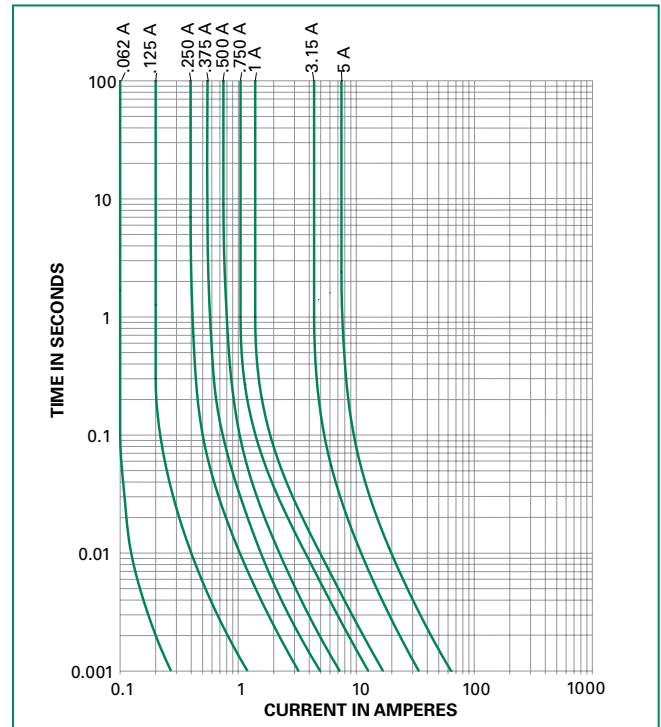
| Ampere Rating (A) | Amp Code | Interrupting Rating | Nominal Melting I ² t (A ² Sec.) | Minimum Cold Resistance at -20°C (Ohms) | Minimum Cold Resistance at -40°C (Ohms) | Nominal Cold Resistance at 25°C (Ohms) | Agency Approvals | | | |
|-------------------|----------|---------------------------------|--|---|---|--|------------------|-----|-------|----|
| | | | | | | | Ex | IEC | IECEx | RU |
| 0.062 | .062 | 50A @ 125 VAC 300A @ 125 VDC | 0.00011 | 4.89 | 4.39 | 7.00 | x | x | x | x |
| 0.125 | .125 | | 0.0012 | 1.35 | 1.26 | 1.70 | x | x | x | x |
| 0.250 | .250 | | 0.0095 | 0.51 | 0.48 | 0.665 | x | x | x | x |
| 0.375 | .375 | | 0.025 | 0.32 | 0.29 | 0.395 | x | x | x | x |
| 0.500 | .500 | | 0.0598 | 0.24 | 0.22 | 0.302 | x | x | x | x |
| 0.750 | .750 | | 0.153 | 0.14 | 0.12 | 0.175 | x | x | x | x |
| 1.00 | 001. | | 0.256 | 0.10 | 0.07 | 0.128 | x | x | x | x |
| 3.00 | 003. | 50A @ 125 VAC 300A @ 63 VDC | 1.27 | 0.03 | 0.01 | 0.03 | x | x | x | x |
| 5.00 | 005. | | 4.14 | 0.01 | 0.005 | 0.0158 | x | x | x | x |

- 1) The fuse must be so mounted that creepage and clearance distances aren't impaired in any way.
 2) The fuse is suitable for use in intrinsically safe equipment for voltages not exceeding 190V peak.
 3) Maximum surface temperature rise at 170% rated current: ≤750mA=40°C, 1A=55°C, 3A=118°C and 5A=135°C.

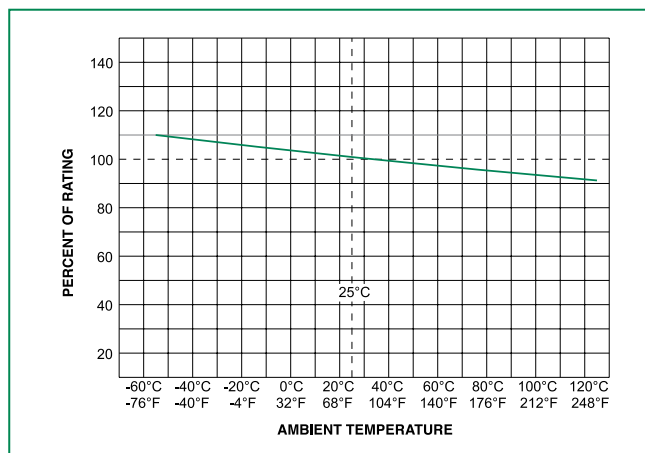
Product Characteristics

| | |
|--|--|
| 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



Temperature Re-rating Curve



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

Soldering Parameters

Recommended Process Parameters:

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

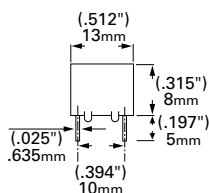
Recommended Hand Soldering Parameters:

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



Part Numbering System

0259.062M

SERIES

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

Example:

1 amp product is
0259**001**.M
(.062 amp product shown).

Packaging

| Packaging Option | Packaging Specification | Quantity | Quantity & Packaging Code |
|------------------|-------------------------|----------|---|
| Bulk | N/A | 1000 | M = Bulk 1000 pieces, T = Bulk 10 pieces Please refer to available quantities above in "Part Numbering System" |
| Bulk | N/A | 10 | |

Mouser Electronics

Authorized Distributor

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Littelfuse:

[0259.062T](#) [0259.125T](#) [0259.250T](#) [0259.375T](#) [0259.750T](#) [259.25](#) [0259.062M](#) [0259.250M](#) [0259.375M](#) [0259001.M](#)
[259001](#) [0259.500T](#) [0259001.T](#) [0259.125M](#) [0259.500M](#) [0259.750M](#) [0259003.M](#) [0259005.M](#) [0259003.T](#)
[0259005.T](#)