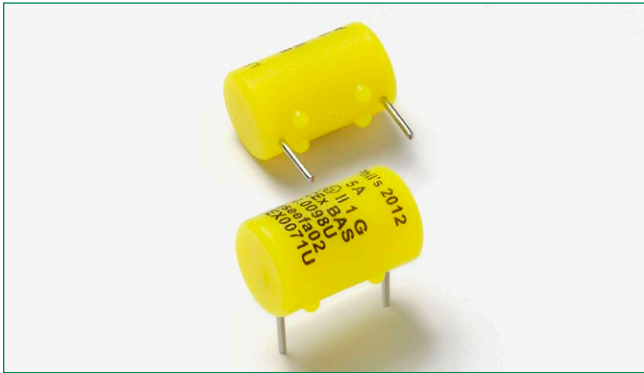


PICO® 259 Series Safe-T-Plus Fuse



**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**

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

**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 <sup>2</sup> t (A <sup>2</sup> 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
0.125	.125		0.0012	1.35	1.26	1.70	x	x	x
0.250	.250		0.0095	0.51	0.48	0.665	x	x	x
0.375	.375		0.025	0.32	0.29	0.395	x	x	x
0.500	.500		0.0598	0.24	0.22	0.302	x	x	x
0.750	.750		0.153	0.14	0.12	0.175	x	x	x
1.00	.001		0.256	0.10	0.07	0.128	x	x	x
3.00	.003	1.27	0.03	0.01	0.03	x	x	x	
5.00	.005	50A @ 125 VAC 300A @ 63 VDC	4.14	0.01	0.005	0.0158	x	x	x

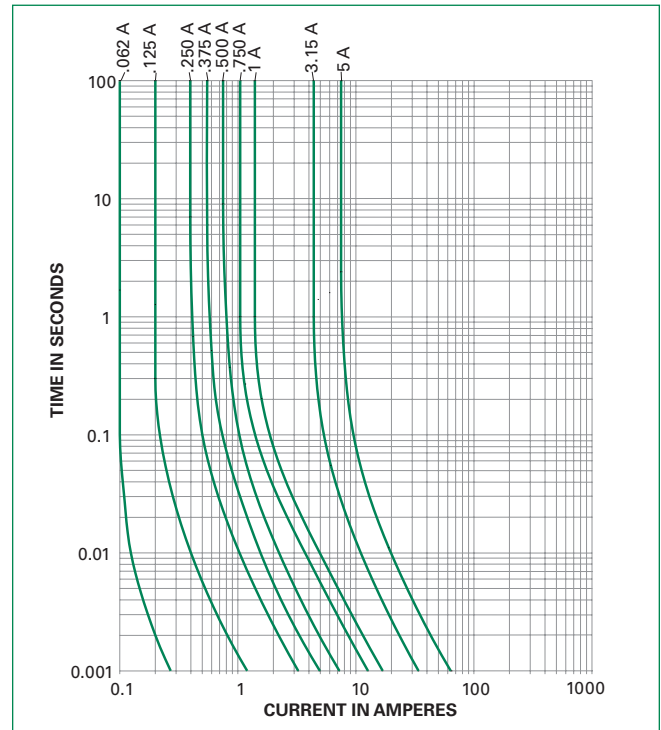
**Schedule of limitations:**

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: <math>\leq 750mA=40^{\circ}C</math>, <math>1A=55^{\circ}C</math>, <math>3A=118^{\circ}C</math> and <math>5A=135^{\circ}C</math>.

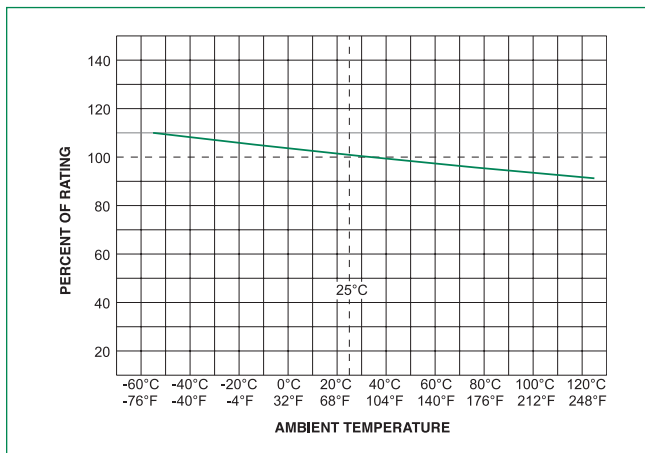
**Product Characteristics**

<b>Materials</b>	Body : Polyamide Terminals - Tin Plated Copper Alloy Max. operating temperature of materials 130°C
<b>Operating Temperature</b>	Operating temperature depends on fuse rating and max. allowed fuse surface temperature. (Consider re-rating)
<b>Thermal Shock</b>	Withstands 5 cycles of - 55°C to 125°C
<b>Vibration</b>	Per MIL-STD-202, Method 201
<b>Insulation Resistance (After Opening)</b>	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
<b>Preheat:</b> (Depends on Flux Activation Temperature)	(Typical Industry Recommendation)
<b>Temperature Minimum:</b>	100°C
<b>Temperature Maximum:</b>	150°C
<b>Preheat Time:</b>	60-180 seconds
<b>Solder Pot Temperature:</b>	260°C Maximum
<b>Solder Dwell Time:</b>	2-5 seconds

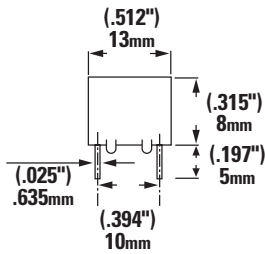
#### Recommended Hand Soldering Parameters:

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	

**Disclaimer Notice** - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at: [www.littelfuse.com/disclaimer-electronics](http://www.littelfuse.com/disclaimer-electronics)