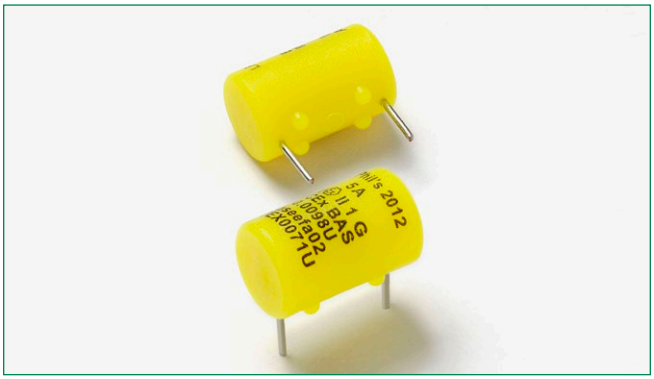
PICO® 259 Series Safe-T-Plus Fuse



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 certitifed for use within intrinsically safe apparatus with ATEX and IECEx certifications.

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

Agency Approvals

Agency	Agency File Number	Ampere Range
Ex	Baseefa02ATEX0071U	0.062A - 5A
IEC IECEx	IECEx BAS 10.0098U	0.062A - 5A
UL	E10480 E358130	0.062A - 5A

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

Electrical Characteristics for Series

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

Applications

- Testing, measuring or processing electronic and electrical equipment

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

Additional Information

Datasheet | Resources | Samples

Revised: GD.10/13/20

Special Application Fuses

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

Electrical Specifications by Items

Ampere Rating (A)	Amp Code	Interrupting Rating	Nominal Melting I^2t (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	
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

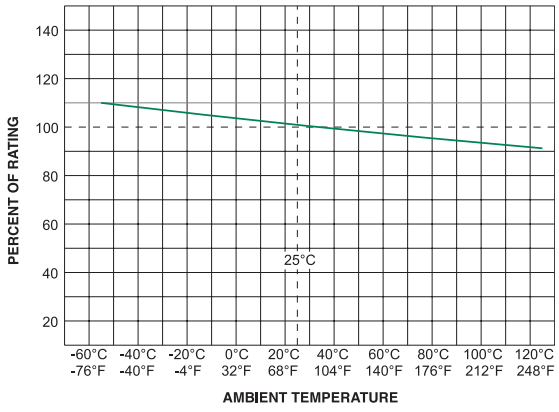
Schedule of limitations:

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: ≤750mA=40°C, 1A=55°C, 3A=118°C and 5A=135°C.

Product Characteristics

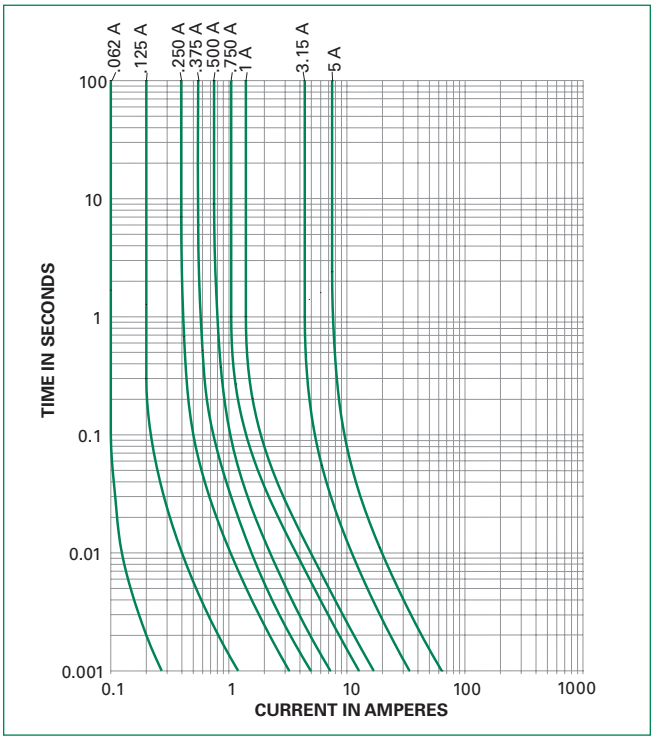
Materials	Body : Polyamide Terminals - Tin Plated Copper Alloy Max. operating temperature of materials 130°C
Operating Temperature	Operating temperature depends on fuse rating and max. allowed fuse surface temperature. (Consider re-rating)
Thermal Shock	Withstands 5 cycles of – 55°C to 125°C
Vibration	Per MIL-STD-202, Method 201
Insulation Resistance (After Opening)	Greater than 10,000 ohms

Temperature Re-rating Curve



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

Average Time Current Curves



Revised: GD.10/13/20

Special Application Fuses

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

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

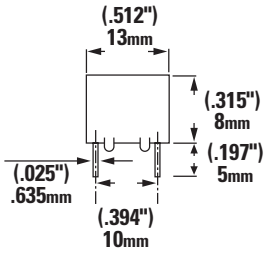
Recommended Hand Soldering Parameters:

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 poisitioned 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

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

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