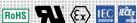


## PICO® 259 Series Safe-T-Plus Fuse











# **Agency Approvals**

Agency	Agency File Number	Ampere Range
⟨£x⟩	Baseefa02ATEX0071U	0.062A - 5A
IEC TECEX	IECEx BAS 10.0098U	0.062A - 5A
<b>71</b> 2	E10480	0.062A - 5A

#### **Electrical Characteristics for Series**

	% of Ampere Rating	Opening Time
ĺ	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

## **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).

#### **Features**

- Encapsulated and sealed (1mm minimum)
- 0.062A 5A range options RoHS compliant
- Designed to operate within environments where there is danger of gas explosion from faulty circuits
- ATEX and IECEx certified components

#### **Applications**

• Testing, measuring or processing electronic and electrical equipment

#### **Additional Information**







Samples

#### **Electrical Specifications by Items**

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

<sup>1)</sup> The fuse must be so mounted that creepage and clearance distances aren't impaired in any way.

<sup>2)</sup> The fuse is suitable for use in intrinsically safe equipment for voltages not exceeding 190V peak.

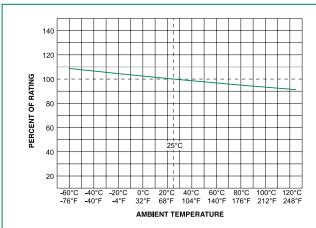
3) Maximum surface temperature rise at 170% rated current: <750mA=40°C, 1A=55°C, 3A=118°C and 5A=135°C.



## **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:

### **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 DwellTime:	2-5 seconds		

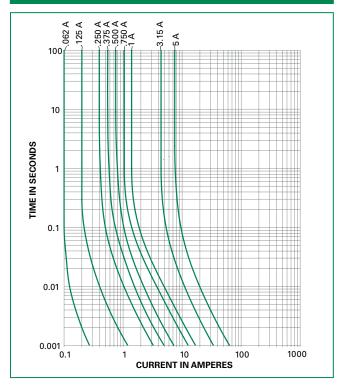
#### **Recommended Hand Soldering Parameters:**

Solder Iron Temperature: 350°C +/- 5°C

Heating Time: 5 seconds max.

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

## **Average Time Current Curves**



## **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.

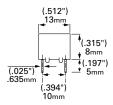
#### PACKAGING Code -

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

# Example:

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

#### **Dimensions**



## **Packaging**

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

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