# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

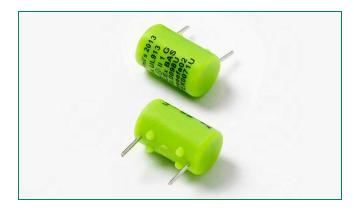
Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





## PICO® 259-UL913 Series Intrinsically Safe Fuse

RoHS EL (Ex) IEC IECEX



Agency Approvals			
Agency	Agency File Number	Ampere Range	
Æx>	Baseefa02ATEX0071U	0.62A - 5A	
<b>R</b> I	E10480 E358130	0.62A - 5A	
IEC IECEx	IECEx BAS 10.0098U	0.62A - 5A	

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

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

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

#### Description

The 259-UL913 Series offers a range of encapsulated fuses certified under the UL 913, the standard for intrinsically safe electrical equipment, to operate in hazardous locations. Ideal for use in the oil, gas, mine, chemical process, and pharmaceutical industries, the 259-UL913 fuse was designed to limit the energy and temperature generated during its operation. In addition to UL913, these fuses meet ATEX and IECEx requirements. 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 certifications (1mm minimum)
- Global hazardous location
- 0.62A 5A range options
- Designed to operate within hazardous environments

#### 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		

Ampere Amp Interrupting		Interrupting	Nominal	Minimum Cold		Nominal Cold	Agency Approvals		
Rating Code (A)	Rating	Melting I²t (A² Sec.)	Resistance at -20°C (Ohms)	Resistance at -40°C (Ohms)	Resistance at 25°C (Ohms)	(Ex)	IEC TECEX	71	
0.062	.062		0.00011	4.89	4.39	7.00	х	x	Х
0.125	.125		0.0012	1.35	1.26	1.70	х	х	х
0.250	.250		0.0095	0.51	0.48	0.67	х	х	х
0.375	.375	50A @ 125 VAC	0.025	0.32	0.29	0.395	х	х	х
0.500	.500	300A @ 125 VDC	0.0598	0.24	0.22	0.302	х	х	х
0.750	.750		0.153	0.14	0.12	0.175	х	х	х
1.00	001.		0.256	0.10	0.07	0.128	х	х	х
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	x	х

Schedule of limitations:

1) The fuse must be mounted in such a way 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.

#### **Additional Information**







Samples

#### © 2016 Littelfuse, Inc.

Specifications are subject to change without notice. Application testing is strongly recommended. Revised: 01/06/16

#### **Product Characteristics**

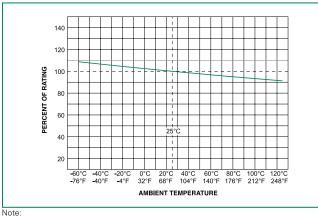
OperatingTemperature			
Current Rating	AmbientTemperature		
≤ 0.750 A	- 40°C to +81°C		
1 A	- 40°C to +73°C		
3 A	- 40°C to +74°C		
5 A	- 40°C to +45°C		

#### Notes:

 Any use of the 259-UL913 Series fuse outside of the ambient temperature ranges specified in the table is subject to additional investigation.
Specified ambient temperature range is for intrinsic safety certification.

Materials	Body : Polyamide Terminals - Tin Plated Copper Alloy Maximum operating temperature of Materials is 130°C	
Operating Temperature	For operating temperature see table above (Consider re-rating)	
Thermal Shock	Withstands 5 cycles of – 55°C to 125°C	
Vibration	Per MILSTD-202, Method 201	
Insulation Resistance (After Opening)	Greater than 10,000 ohms (at 250V DC)	

#### **Temperature Re-rating Curve**



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

#### Soldering Parameters

#### **Recommended Process Parameters:**

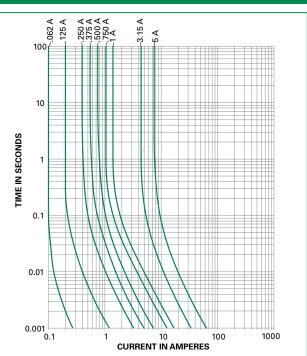
Wave Parameter	Lead-Free Recommendation	
Preheat: (Depends on Flux Activation Temperature)	(Typical Industry Recommendation)	
Temperature Minimum:	100°C	
Temperature Maximum:	150°C	
Preheat Time:	60-180 seconds	
Solder Pot Temperature:	260°C Maximum	
Solder Dwell Time:	2-5 seconds	

#### **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

#### **Average Time Current Curves**



#### **Part Numbering System**

#### 0259.062M X913

Example:

1 amp product is

0259<u>001.</u>MX913

(.062 amp product shown).

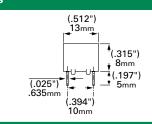
### SERIES -

#### 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

#### 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"

© 2016 Littelfuse, Inc. Specifications are subject to change without notice. Revised: 01/06/16