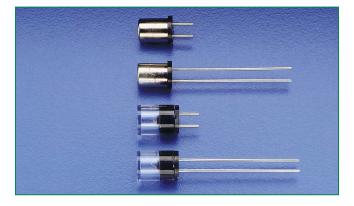


# 272/273/274/278/279 Series, MICRO™ Very Fast-Acting Fuse



#### **Agency Approvals**

Agency	Agency File Number	Ampere Range
<b>71</b>	E10480	0.002A - 5A
(Sft)	29862	0.002A - 5A
QPL	FM02	0.002A - 5A

# Description

Developed originally for the U.S. Space Program, MICRO<sup>™</sup> fuse provides reliability in a compact design. The MICRO<sup>™</sup> fuse is available in plug–in or radial lead styles and a complete range of ampere ratings from 0.002A to 5A to suit a wide variety of design needs.

#### Features

- Military grade available
- High breaking capacity
- Available from very low ampere of 0.002A to 5A

**91 🚯 Q**PL

 Clear cover option to view fuse element status
Plug-in with short or long leads option

# Applications

- Printed circuit boards and similar equipment
- Electronic components

#### **Electrical Characteristics**

% of Ampere Rating	Ampere Rating	OpeningTime	
100%	0.002 – 5	4 Hours, <b>Min.</b>	
200%	0.002 – 0.3	5 Seconds, <b>Max.</b>	
200 %	0.4 - 5	2 Seconds, <b>Max.</b>	

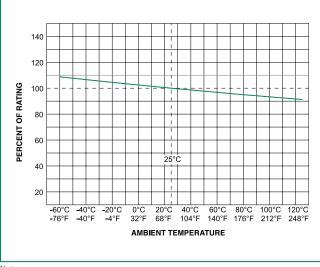
Electrical Characteristics								
Ampere	Amp Code (for all	Max Voltage	Interrupting	Nominal Nominal		Agency Approvals		
Rating (A)	iting above Bating Bating Besistance Melting	Melting I²t (A² sec)	<b>7</b> 1	<u>ج</u>	QPL			
.002	.002	125		2200	0.0000000845	Х	Х	Х
.005	.005	125		280	0.0000000766	Х	X	X
.010	.010	125		80.0	0.000000462	Х	Х	Х
.015	.015	125		44.0	0.00000123	Х	Х	X
.031	.031	125		16.0	0.00000810	Х	Х	X
.050	.050	125		3.52	0.0000666	Х	Х	X
.062	.062	125		2.55	0.000115	Х	Х	Х
.100	.100	125		1.38	0.000385	Х	Х	Х
.125	.125	125		1.0	0.000691	Х	Х	Х
.200	.200	125		2.30	0.00409	Х	Х	Х
.250	.250	125		1.75	0.00640	Х	Х	Х
.300	.300	125	10,000A@125VAC/VDC	1.25	0.00945	Х	Х	Х
.400	.400	125	10,000A@125VAC/VDC	0.227	0.0251	Х	Х	Х
.500	.500	125		0.167	0.0716	Х	Х	Х
.600	.600	125		0.430	0.0411	Х	Х	Х
.700	.700	125		0.324	0.0710	Х	Х	Х
.750	.750	125		0.293	0.0563	Х	Х	Х
.800	.800	125		0.271	0.113	Х	Х	Х
1.00	001.	125		0.0880	0.0648	Х	Х	Х
01.5	01.5	125		0.0578	0.160	Х	Х	X
2.00	002.	125		0.0425	0.300	Х	Х	Х
3.00	003.	125		0.0275	0.759	Х	Х	X
*4.00	004.	125		0.0202	1.38	Х	X	X
*5.00	005.	125		0.0156	2.21	Х	X	X

\* The fuses of 4A and 5A for 272 and 278 Series are obsolete.

#### © 2015 Littelfuse, Inc. Specifications are subject to change without notice. Application testing is strongly recommended. Revised: 07/29/15



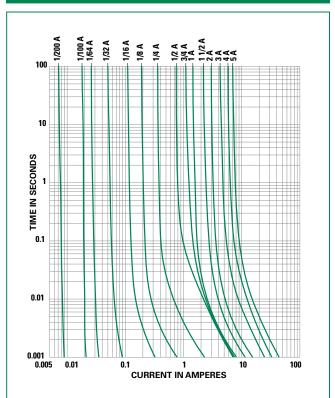
# Temperature Re-rating Curve



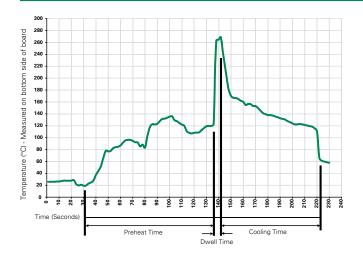
Note:

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





#### **Soldering Parameters - Wave Soldering**



#### **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 PotTemperature:	260° C Maximum		
Solder Dwell Time:	2-5 seconds		

# **Recommended Hand-Solder Parameters:**

Solder Iron Temperature: 350° C +/- 5°C Heating Time: 5 seconds max.

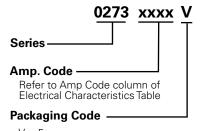
Note: These devices are not recommended for IR or Convection Reflow process.



# **Product Characteristics**

Operating Temperature:	273 and 279: –55°C to +85°C; 272 and 278: –55°C to +125°C		
Fuses to MIL SPEC	Military QPL type (FM02). To order, change 273 to 274.		
	272 and 278 series cap: Nickel Plated Brass		
Materials	273, 274 and 279 series cap: Mirror polished Polycarbonate		
	Base: R-4 Ryton		
	Pins: Tin Plated Copper		
Product Marking	Current and voltage ratings stamped on cap		

#### **Part Numbering System**



V = 5H = 100

# **Additional Information**



Datasheet 272 Series



Datasheet 273 Series



Datasheet 274 Series



Datasheet 278 Series



Datasheet 279 Series

|--|

Resources 272 Series

Resources

273 Series

Resources 274 Series

-

Resources 278 Series

Resources

279 Series







Samples 274 Series



278 Series

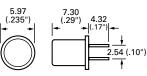


Samples 279 Series

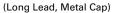
# Dimensions

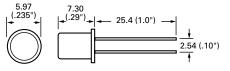
#### 272 000 Series

(Short Lead, Metal Cap)



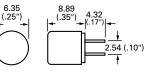
#### 278 000 Series





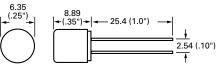
#### 273 000 and 274 000 Series

(Short Lead, Clear Plastic Cap)



#### 279 000 Series

(Long Lead, Clear Plastic Cap)



NOTE: Amperage and voltage rating stamped on cap. Leads are tin plated copper; .025" diameter.

#### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code
Bulk	N/A	5	V
Bulk	N/A	100	Н

© 2015 Littelfuse, Inc. Specifications are subject to change without notice. Revised: 07/29/15

272 Series

Samples 273 Series





