

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



### Description

Developed originally for the U.S. Space Program, MICRO™ fuse provides reliability in a compact design. The MICRO™ fuse is available in plug-in or radial lead styles and a complete range of ampere ratings from 1/500 to 5A to suit a wide variety of design needs.

### Features

- Military grade available
- High breaking capacity
- Clear cover option to view fuse element status
- Available from very low ampere of 2mA to 5A
- Plug-in with short or long leads option

### Applications

- Printed circuit boards and similar equipment
- Electronic components

### Agency Approvals

Agency	Agency File Number	Ampere Range
	E10480	2mA - 5A
	LR 29862	2mA - 5A
	FM02	2mA - 5A

### Electrical Characteristics

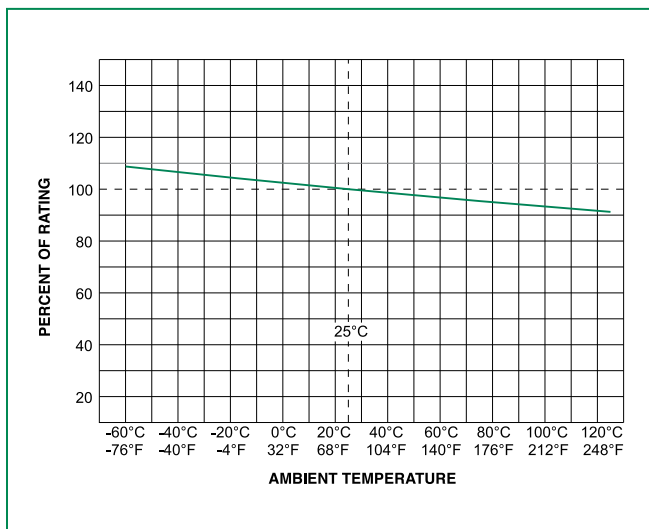
% of Ampere Rating	Ampere Rating	Opening Time
100%	1/500-5	4 Hours, <b>Min.</b>
200%	1/500-3/10	5 Seconds, <b>Max.</b>
	4/10-5	2 Seconds, <b>Max.</b>

### Electrical Characteristics

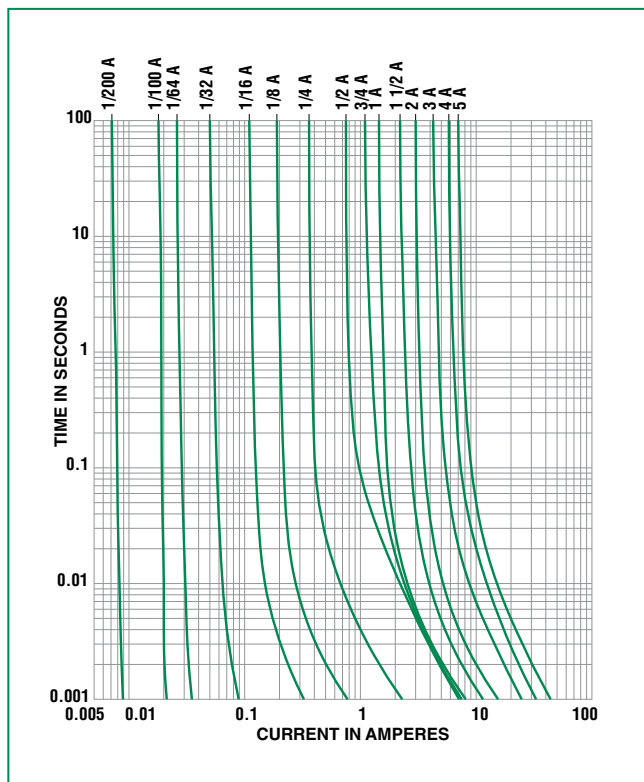
Ampere Rating (A)	Amp Code (for all above series)	Max Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec)	Agency Approvals		
								
.002	.002	125	10,000 amperes at 125 VAC/VDC.	2200	0.00000000845	X	X	X
.005	.005	125		280	0.00000000810	X	X	X
.010	.010	125		80.0	0.000000462	X	X	X
.015	.015	125		44.0	0.00000123	X	X	X
.031	.031	125		16.0	0.00000810	X	X	X
.050	.050	125		3.20	0.0000666	X	X	X
.062	.062	125		2.32	0.000115	X	X	X
.100	.100	125		1.25	0.000385	X	X	X
.125	.125	125		1.0	0.000691	X	X	X
.200	.200	125		2.30	0.00409	X	X	X
.250	.250	125		1.75	0.00640	X	X	X
.300	.300	125		1.25	0.00945	X	X	X
.400	.400	125		0.227	0.0251	X	X	X
.500	.500	125		0.167	0.0716	X	X	X
.600	.600	125		0.430	0.0411	X	X	X
.700	.700	125		0.324	0.0710	X	X	X
.750	.750	125		0.293	0.0900	X	X	X
.800	.800	125		0.271	0.113	X	X	X
1.00	.001	125		0.0880	0.0648	X	X	X
01.5	01.5	125		0.0578	0.160	X	X	X
2.00	002.	125		0.0425	0.300	X	X	X
3.00	003.	125		0.0275	0.759	X	X	X
4.00	004.	125		0.0202	1.38	X	X	X
5.00	005.	125		0.0156	2.21	X	X	X

272-4/278-9

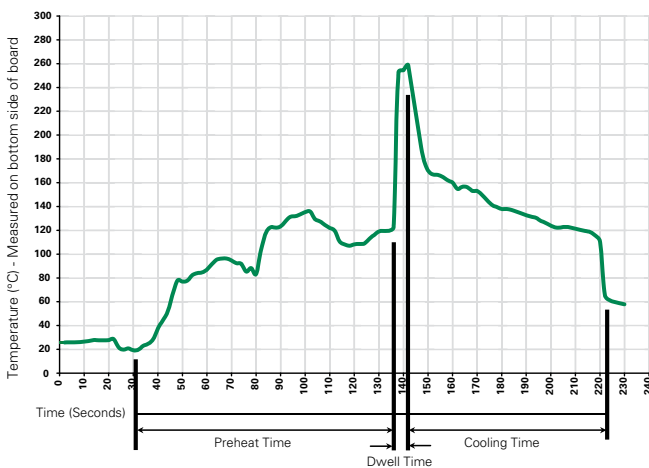
**Temperature Derating Curve**



**Average Time Current Curves**



**Soldering Parameters - Wave Soldering**



**Recommended Process Parameters:**

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

**Recommended Hand-Solder Parameters:**

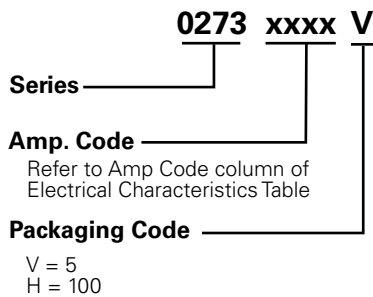
Solder Iron Temperature: 350° C +/- 5°C  
Heating Time: 5 seconds max.

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

## Product Characteristics

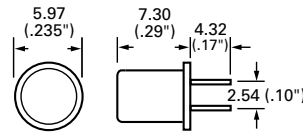
<b>Operating Temperature:</b>	273 and 279: -55°C to +85°C; 272 and 278: -55°C to +125°C
<b>Fuses to MIL SPEC</b>	273 Series is available in CSA LR 29862. Military QPL type (FM02). To order, change 273 to 274.
<b>Materials</b>	272 and 278 series cap: Nickel Plated Brass 273, 274 and 279 series cap: Mirror polished Polycarbonate Base: R-4 Ryton Pins: Tin Plated Copper
<b>Product Marking</b>	Current and voltage ratings stamped on cap

## Part Numbering System

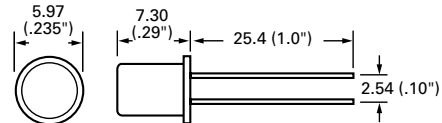


## Dimensions

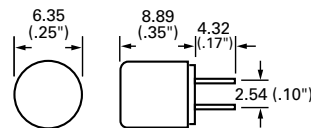
### 272 000 Series (Short Lead, Metal Cap)



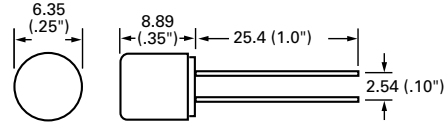
### 278 000 Series (Long Lead, Metal Cap)



### 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	H