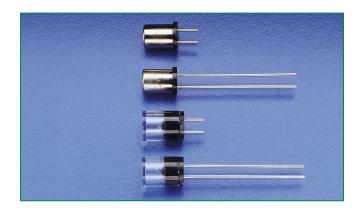


# 272/273/274/278/279 Series, MICRO™ Very Fast-Acting Fuse





#### **Agency Approvals**

Agency	Agency File Number	Ampere Range
<i>7</i> 12	E10480	0.002A - 5A
<b>(</b>	29862	0.002A - 5A
QPL	FM02	0.002A - 5A

# **Description**

Developed originally for the U.S. Space Program, MICRO<sup>TM</sup> fuse provides reliability in a compact design. The MICRO<sup>TM</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
- Clear cover option to view fuse element status
- Available from very low ampere of 0.002A to 5A
- 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> .

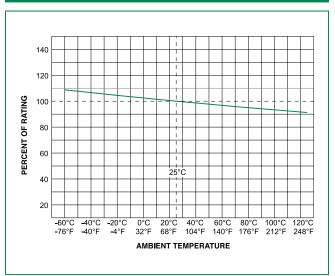
# **Electrical Characteristics**

Ampere	Amp Code Max (for all Voltage above Rating series) (V)			Nominal Nomina	Nominal	Agency Approvals		
Rating (A)		Interrupting Rating	Cold Resistance (Ohms)	Melting I <sup>2</sup> t (A <sup>2</sup> sec)	<b>M</b> .	<b>(</b>	QPL	
.002	.002	125		2200	0.00000000845	Χ	X	X
.005	.005	125		280	0.0000000766	Χ	X	X
.010	.010	125		80.0	0.000000462	Χ	X	X
.015	.015	125		44.0	0.00000123	Х	X	X
.031	.031	125		16.0	0.00000810	Х	X	X
.050	.050	125		3.52	0.0000666	Х	X	X
.062	.062	125	10,000A@125VAC/VDC	2.55	0.000115	Х	X	X
.100	.100	125		1.38	0.000385	Х	X	X
.125	.125	125		1.0	0.000691	Х	Х	X
.200	.200	125		2.30	0.00409	Х	X	X
.250	.250	125		1.75	0.00640	Х	Х	X
.300	.300	125		1.25	0.00945	X	X	X
.400	.400	125	10,000A@123VAC/VDC	0.227	0.0251	Х	Х	X
.500	.500	125		0.167	0.0716	X	Х	X
.600	.600	125		0.430	0.0411	Х	Х	X
.700	.700	125		0.324	0.0710	Х	Х	X
.750	.750	125		0.293	0.0563	Х	Х	X
.800	.800	125		0.271	0.113	Х	Х	X
1.00	001.	125		0.0880	0.0648	Х	Х	X
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	Χ	X	X

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



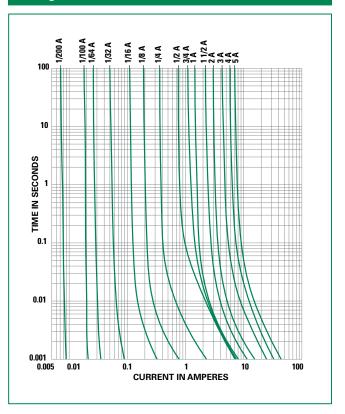
# **Temperature Re-rating Curve**



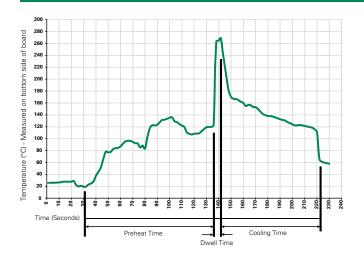
#### Note:

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

# **Average Time Current Curves**



# **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 Pot Temperature:	260° C Maximum		
Solder DwellTime:	2-5 seconds		

# **Recommended Hand-Solder Parameters:**

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

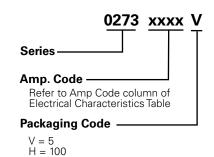
Note: These devices are not recommended for IR or Convection Reflow process.



#### **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**



# **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 272 Series



Samples 273 Series



Samples 274 Series



Samples 278 Series

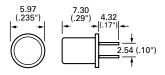


Samples 279 Series

#### **Dimensions**

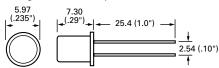
#### 272 000 Series

(Short Lead, Metal Cap)



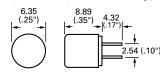
#### 278 000 Series

(Long Lead, Metal Cap)



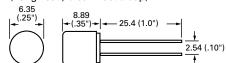
#### 273 000 and 274 000 Series

(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	Н

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