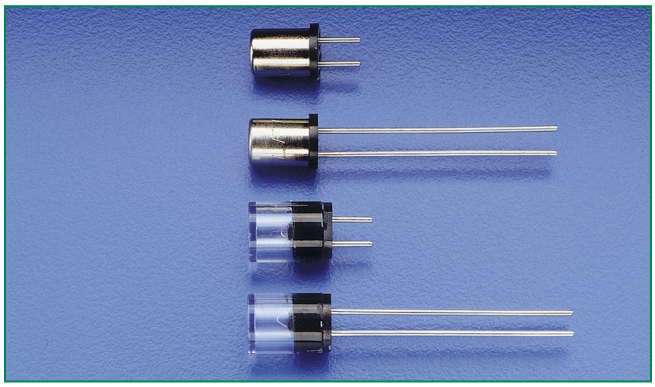
272/273/274/278/279 Series, MICRO™ Very Fast-Acting Fuse



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 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
- Recognized to UL/CSA/NMX 248-1 and UL/CSA/NMX 248-14

Agency Approvals

Agency	Agency File Number	Ampere Range
	E10480	0.002A - 5A
	29862	0.002A - 5A
QPL	QPL-23419	0.002A - 5A

Applications

- Printed circuit boards and similar equipment
- Electronic components

Electrical Characteristics

% of Ampere Rating	Ampere Rating	Opening Time
100%	0.002 – 5	4 Hours, **Min.**
200%	0.002 – 0.3	5 Seconds, **Max.**
	0.4 - 5	2 Seconds, **Max.**

Electrical Characteristics

Ampere Rating (A)	Amp Code (for all above series)	Max Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A^2 sec)	Agency Approvals		
								QPL
0.002	0.002	125	10,000A@125VAC/VDC	2200	0.00000000845	X	X	X
0.005	0.005	125		280	0.0000000766	X	X	X
0.010	0.010	125		80.0	0.000000462	X	X	X
0.015	0.015	125		44.0	0.00000123	X	X	X
0.031	0.031	125		16.0	0.00000810	X	X	X
0.050	0.050	125		3.52	0.0000666	X	X	X
0.062	0.062	125		2.55	0.000115	X	X	X
0.100	0.100	125		1.38	0.000385	X	X	X
0.125	0.125	125		1.0	0.000691	X	X	X
0.200	0.200	125		2.30	0.00409	X	X	X
0.250	0.250	125		1.75	0.00640	X	X	X
0.300	0.300	125		1.25	0.00945	X	X	X
0.400	0.400	125		0.227	0.0251	X	X	X
0.500	0.500	125		0.167	0.0716	X	X	X
0.600	0.600	125		0.430	0.0411	X	X	X
0.700	0.700	125		0.324	0.0710	X	X	X
0.750	0.750	125		0.293	0.0563	X	X	X
0.800	0.800	125		0.271	0.113	X	X	X
1.00	001.0	125		0.0880	0.0648	X	X	X
01.5	01.5	125		0.0578	0.160	X	X	X
2.00	002.0	125		0.0425	0.300	X	X	X
3.00	003.0	125		0.0275	0.759	X	X	X
*4.00	004.0	125		0.0202	1.38	X	X	X
*5.00	005.0	125		0.0156	2.21	X	X	X

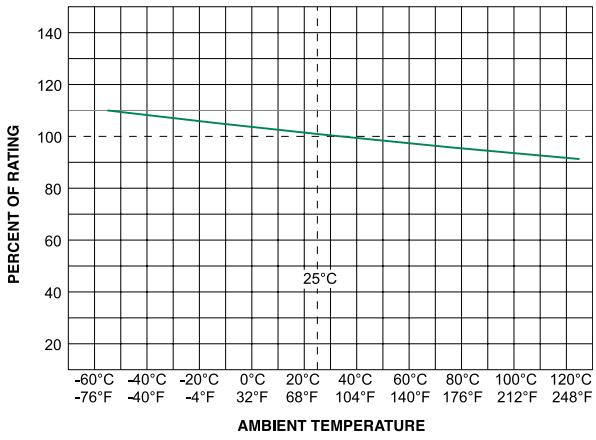
* The fuses of 4A and 5A for 272 and 278 Series are obsolete.

Revised: 11/14/19

Axial Lead & Cartridge Fuses

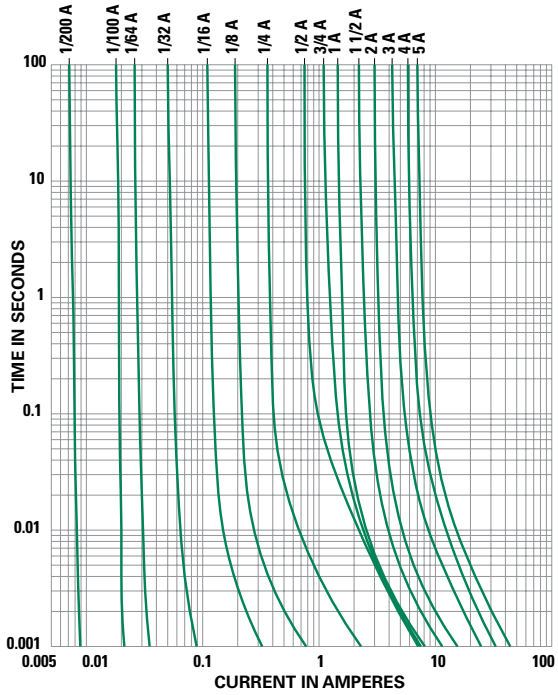
MICRO™ > Very Fast-Acting Fuse > 272/273/274/278/279 Series

Temperature Re-rating Curve

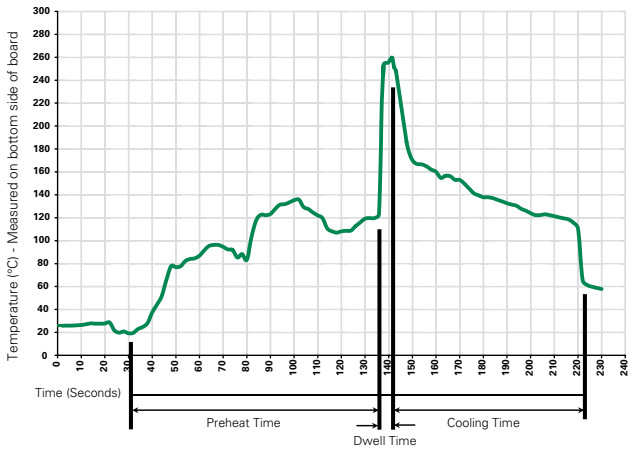


Note:
1. Rerating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

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 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.

Revised: 11/14/19

Axial Lead & Cartridge Fuses

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

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.
Materials	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
Product Marking	Current and voltage ratings stamped on cap

Part Numbering System

0273 xxxx V

Series

Amp. Code
Refer to Amp Code column of Electrical Characteristics Table

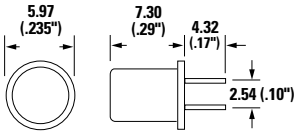
Packaging Code
V = 5
H = 100

Additional Information

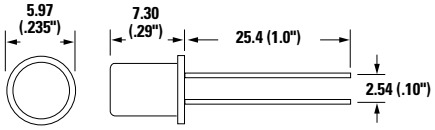
Datasheet 272 Series	**Resources 272 Series**	**Samples 272 Series**
Datasheet 273 Series	**Resources 273 Series**	**Samples 273 Series**
Datasheet 274 Series	**Resources 274 Series**	**Samples 274 Series**
Datasheet 278 Series	**Resources 278 Series**	**Samples 278 Series**
Datasheet 279 Series	**Resources 279 Series**	**Samples 279 Series**

Dimensions

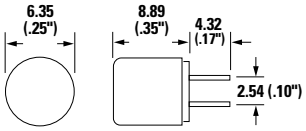
272 000 Series
(Short Lead, Metal Cap)



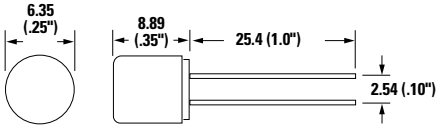
278 000 Series
(Long Lead, Metal Cap)



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	H

*Only V-pack version for low current rating from 0.002 - 0.062 (A) and for 274, 278, 279 Series

Revised: 11/14/19

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Littelfuse:

278.1 278.2 273.01 273.05 278002 273001 27301.5 273002 273003 273004 273005 273.062 272.125 27901.5 272.062 278.125 274.125 0272002.H 0272005.H 0279.750V 0274.300V 0272.010V 0273.002V 0279.250V 0273001.H 0273.250H 0279.050V 0274002.V 0279.005V 0274001.V 0272.125V 0273.010V 0278001.V 0274.200V 0274003.V 0278.700V 0272.700V 0273.300H 0278.750V 0273.700V 0279003.V 0274.002V 0279.300V 0274.750V 0274.125V 0279.062V 0273.050H 0278.200V 0279.400V 0273.031V 0274.250V 0279004.V 0278002.V 0272.015V 0278.500V 0278.005V 0274.010V 0273.100H 0279002.V 0272003.H 0273.200V 027801.5V 0274.015V 0272.250H 0272003.V 027401.5V 0278.300V 0272.400V 0272001.H 0279.010V 0279.031V 0279001.V 0272.200V 0279.500V 0273004.H 0279.600V 0278.125V 0272004.V 0278.250V 027901.5V 0278.100V 279.125 0272.600V 0278.002V 0278.050V 0274005.V 0273.005V 0273002.H 0272.100V 0273002.V 0273.100V 0273.125V 273.2 279.01 279.05 279.25 279.3 027301.5V 0273.250V 272.05