

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

Electrical Characteristics

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

Agency Approvals

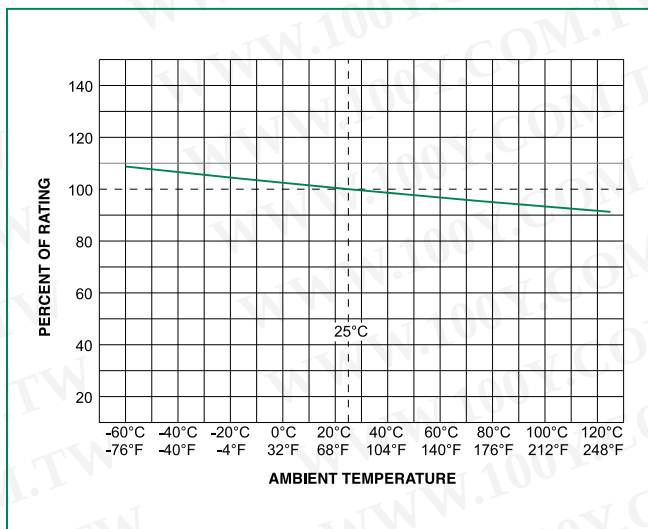
Agency	Agency File Number	Ampere Range
	E10480	2mA - 5A
	LR 29862	2mA - 5A
	FM02	2mA - 5A

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

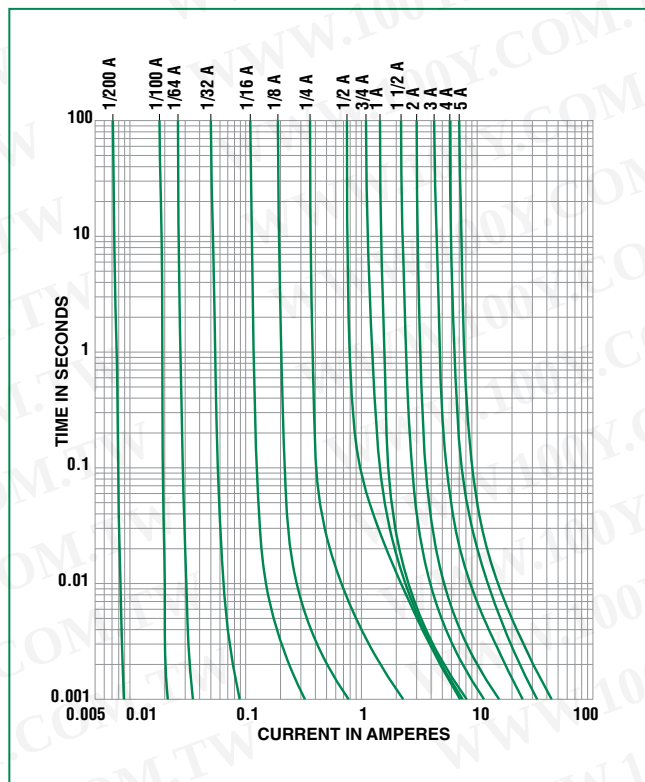
Electrical Characteristics

Ampere Rating (A)	Amp Code (for all above series)	Max Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I ² t (A ² 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

Temperature Derating Curve

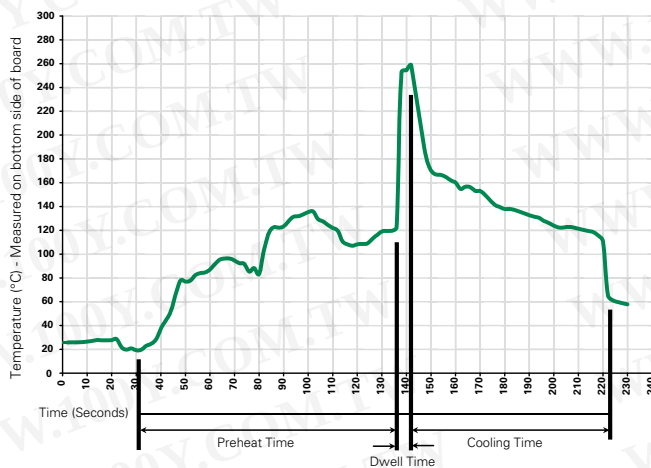


Average Time Current Curves



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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:

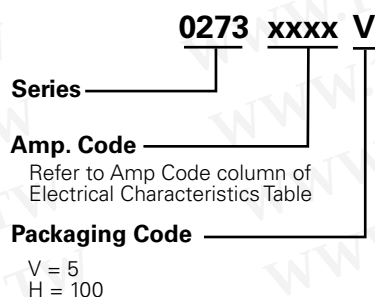
Solder Iron Temperature: 350° C +/- 5°C
Heating Time: 5 seconds max.

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

Product Characteristics

Operating Temperature:	273 and 279: -55°C to +85°C; 272 and 278: -55°C to +125°C
Fuses to MIL SPEC	273 Series is available in CSA LR 29862. 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

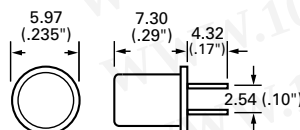
Part Numbering System



Dimensions

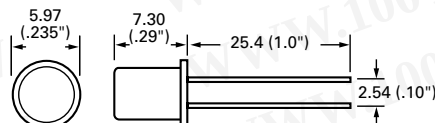
272 000 Series

(Short Lead, Metal Cap)



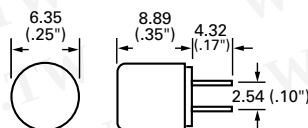
278 000 Series

(Long Lead, Metal Cap)



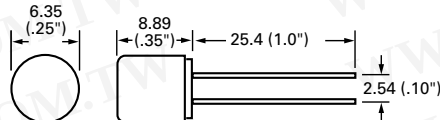
273 000 and 274 000 Series

(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

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Axial Lead and Cartridge Fuses

Subminiature

勝特力材料 886-3-5753170
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MICRO™ FUSE Very Fast-Acting Type 272/273/274/278/279 Series

UL SP QPL

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 5 amperes to suit a wide variety of design needs.

ELECTRICAL CHARACTERISTICS:

% of Ampere Rating	Ampere Rating	Opening Time
100%	1/500–5	4 hours, Minimum
200%	1/500–3/10	5 seconds, Maximum
	4/10–5	2 seconds, Maximum

AGENCY APPROVALS: Recognized under the Components Program of Underwriters Laboratories and Certified by CSA.

AGENCY FILE NUMBERS: UL E10480, CSA LR 29862.

INTERRUPTING RATING: 10,000 amperes at 125 VAC/VDC.

FUSES TO MIL SPEC: 273 Series is available in Military QPL type (FM02). To order, change 273 to 274.

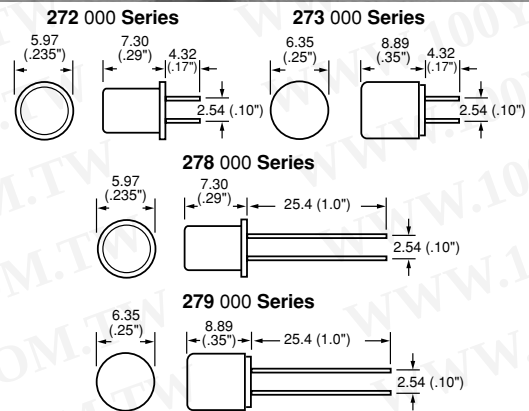
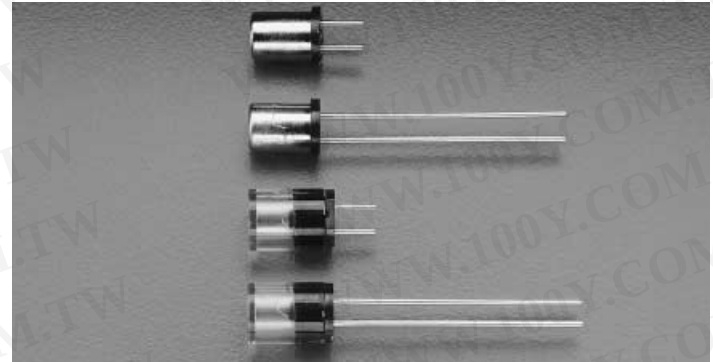
Operating Temperature:

273 and 279: –55°C to 85°C.
 272 and 278: –55°C to 125°C

PATENTED

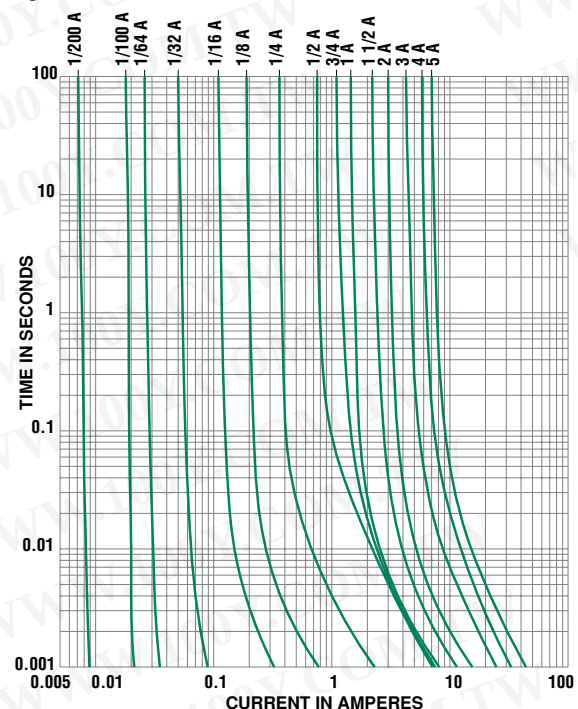
ORDERING INFORMATION:

Plug-In		Radial Lead		Ampere Rating	Voltage Rating	Nominal Resistance Cold Ohms	Nominal Melting I ² t A ² Sec.
Catalog Number	Catalog Number	Catalog Number	Catalog Number				
272.002	273.002	278.002	279.002	1/500	125	2200	0.0000000845
272.005	273.005	278.005	279.005	1/200	125	2800	0.0000000810
272.010	273.010	278.010	279.010	1/100	125	80.0	0.000000462
272.015	273.015	278.015	279.015	1/64	125	44.0	0.00000123
272.031	273.031	278.031	279.031	1/32	125	16.0	0.00000810
272.050	273.050	278.050	279.050	1/20	125	3.20	0.0000666
272.062	273.062	278.062	279.062	1/16	125	2.32	0.000115
272.100	273.100	278.100	279.100	1/10	125	1.25	0.000385
272.125	273.125	278.125	279.125	1/8	125	1.0	0.000691
272.200	273.200	278.200	279.200	2/10	125	2.30	0.00409
272.250	273.250	278.250	279.250	1/4	125	1.75	0.00640
272.300	273.300	278.300	279.300	3/10	125	1.25	0.00945
272.400	273.400	278.400	279.400	4/10	125	0.227	0.0251
272.500	273.500	278.500	279.500	1/2	125	0.167	0.0716
272.600	273.600	278.600	279.600	6/10	125	0.430	0.0411
272.700	273.700	278.700	279.700	7/10	125	0.324	0.0710
272.750	273.750	278.750	279.750	3/4	125	0.293	0.0900
272.800	273.800	278.800	279.800	8/10	125	0.271	0.113
272.001	273.001	278.001	279.001	1	125	0.0880	0.0648
272.015	273.015	278.015	279.015	1 1/2	125	0.0578	0.160
272.002	273.002	278.002	279.002	2	125	0.0425	0.300
272.003	273.003	278.003	279.003	3	125	0.0275	0.759
272.004	273.004	278.004	279.004	4	125	0.0202	1.38
272.005	273.005	278.005	279.005	5	125	0.0156	2.21



NOTE: Amperage and voltage rating stamped on cap. Leads are solder-coated copper; .025" diameter.

Average Time Current Curves





Littelfuse®

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