

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, Min. |
| 200% | 1/500–3/10 | 5 Seconds, Max. |
| | 4/10-5 | 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 ² t (A ² sec) | Agency Approvals | | |
|-------------------|---------------------------------|------------------------|--------------------------------|--------------------------------|---|---|---|---|
| | | | | | |  |  |  |
| .002 | .002 | 125 | 10,000 amperes at 125 VAC/VDC. | 2200 | 0.0000000845 | X | X | X |
| .005 | .005 | 125 | | 280 | 0.0000000810 | 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 |
|---|-----------------------------------|
| 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 |

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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