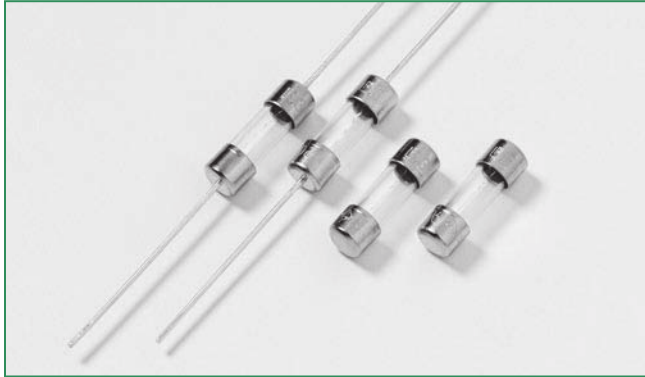


RoHS  **224/225 Series** Lead-Free 2AG, Fast-Acting



Description

The 2AG Fast-Acting Fuses are available in cartridge form or with axial leads. 2AG Fuses provide the same performance characteristics as their 3AG counterpart, while occupying one-third the space. Sleeved fuses are available.






Features

- In accordance with underwriter's Laboratories Standard UL 248-14
- Available in cartridge and axial lead form and with various forming dimensions
- RoHS compliant and Lead-free

Applications

Used as supplementary protection in appliance or utilization equipment to provide individual protection for components or internal circuits.






Agency Approvals

| Agency | Agency File Number | Ampere Range |
|---|--------------------------------------|--|
|  | E10480 | 100mA - 3.5A |
|  | E10480 | 4A - 10A |
|  | LR 29862 | 100mA - 10A |
|  | NBK200405-E10480 NBK060405-E10480 | Cartridge: 1A - 10A Pigtail: 1A - 10A |
|  | | 100mA - 10A |

Electrical Characteristics for Series

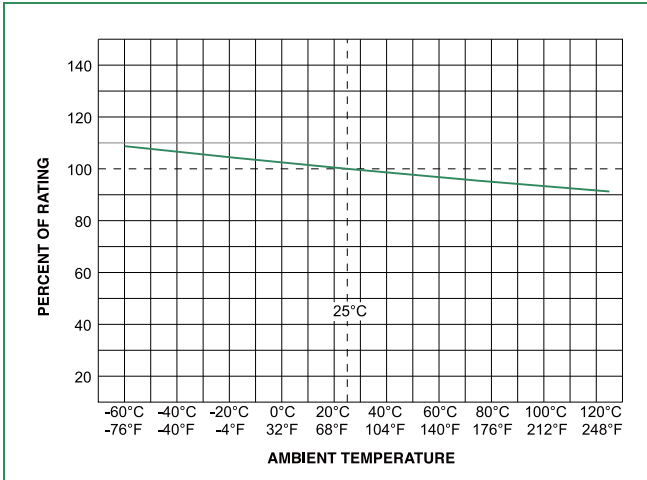
| % of Ampere Rating | Opening Time |
|--------------------|------------------|
| 100% | 4 hours, Minimum |
| 135% | 1 hour, Maximum |
| 200% | 1 sec., Maximum |

Electrical Characteristic Specifications by Item

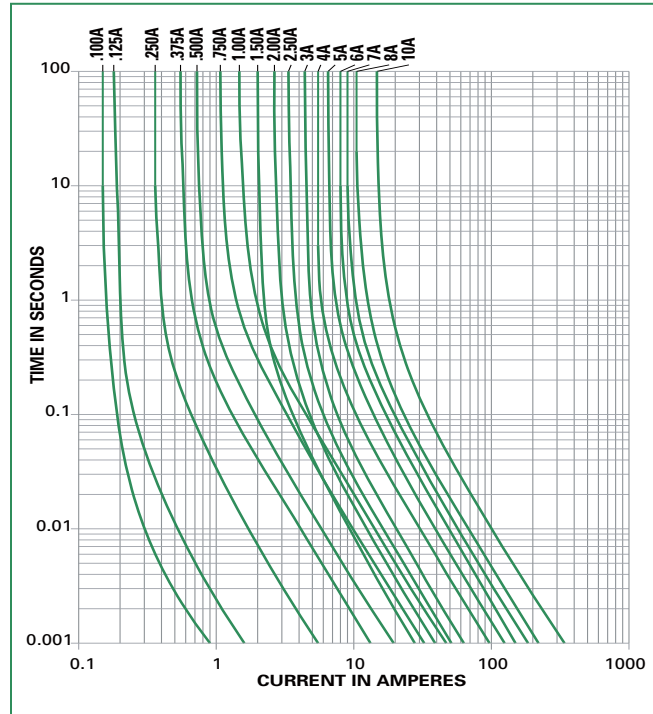
| Amp Code | Ampere Rating (A) | Voltage Rating (V) | Interrupting Rating | Nominal Cold Resistance (Ohms) | Nominal Melting I ² t (A ² sec) | Agency Approvals | | | | |
|----------|-------------------|--------------------|--|--------------------------------|---|--|---|---|---|---|
| | | | | | |  |  |  |  |  |
| .100 | .1 | 250 | 35A@250Vac 10KA@125Vac 10KA@125Vdc | 6.1500 | 0.00075 | x | | x | | x |
| .125 | 0.125 | 250 | | 3.9000 | 0.00286 | x | | x | | x |
| .250 | 0.25 | 250 | | 1.1500 | 0.0300 | x | | x | | x |
| .375 | 0.375 | 250 | | 0.3950 | 0.171 | x | | x | | x |
| .500 | 0.5 | 250 | | 0.2650 | 0.365 | x | | x | | x |
| .750 | 0.75 | 250 | | 0.1520 | 1.050 | x | | x | | x |
| 001. | 1 | 250 | | 0.1027 | 2.220 | x | | x | x | x |
| 01.5 | 1.5 | 250 | 0.0712 | 0.800 | x | | x | x | x | |
| 002. | 2 | 250 | 0.0497 | 1.500 | x | | x | x | x | |
| 02.5 | 2.5 | 250 | 0.0372 | 2.680 | x | | x | x | x | |
| 003. | 3 | 250 | 0.0317 | 4.620 | x | | x | x | x | |
| 03.5 | 3.5 | 250 | 0.0265 | 6.700 | x | | x | x | x | |
| 004. | 4 | 125 | 100A@250Vac 500A@125Vac | 0.0240 | 9.400 | | x | x | x | x |
| 005. | 5 | 125 | | 0.0186 | 17.0 | | x | x | x | x |
| 005. | 5 | 250 | | 0.0186 | 17.0 | | x | x | x | |
| 006. | 6 | 125 | 500A@125Vac | 0.0154 | 22.1 | | x | x | x | x |
| 007. | 7 | 125 | | 0.0130 | 40.0 | | x | x | x | x |
| 008. | 8 | 125 | | 0.0107 | 56.0 | | x | x | x | x |
| 010. | 10 | 125 | | 0.0075 | 116.0 | | x | x | x | x |

* 10A with 500A @ 125 Vdc internal breaking capacity testing.

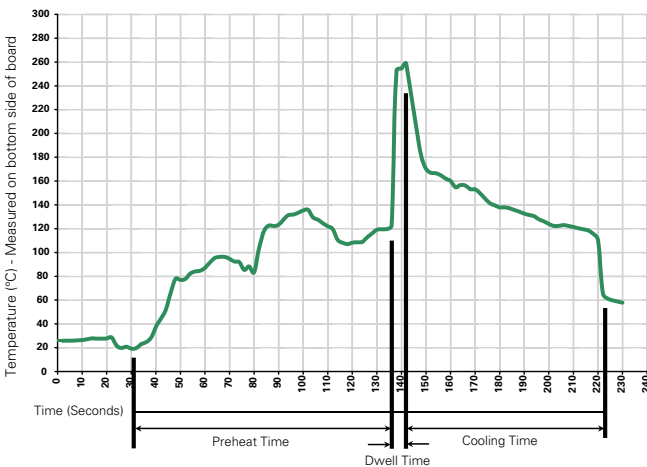
Temperature Derating Curve



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.

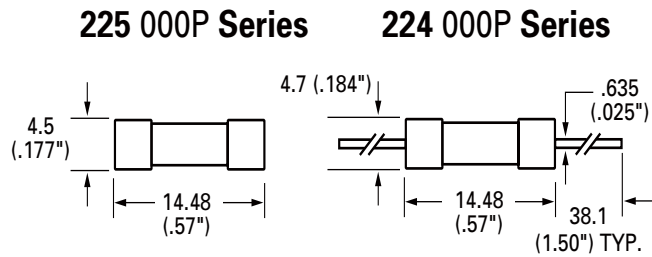
Note: These devices are not recommended for IR or Convection Reflow process.

Product Characteristics

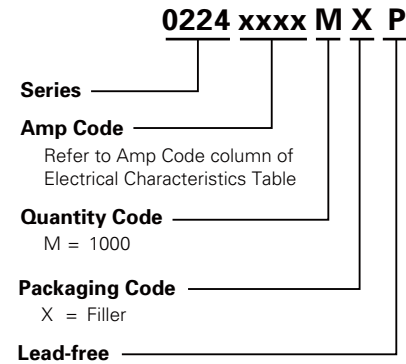
| | |
|--------------------------|---|
| Materials | Body : Glass Cap : Nickel-plated brass Leads: Tin-plated Copper |
| Terminal Strength | MIL-STD-202F Method 211A, Test Condition A |
| Solderability | Reference IEC 6012/Second Edition 2003-01 Annex A |
| Product Marking | Cap1 : Brand logo, current and Voltage Ratings Cap2 : Series and Agency approval Mark |

| | |
|-------------------------------|--|
| Operating Temperature: | -55°C to +125°C |
| Thermal Shock: | MIL-STD-202F, Method 107G, Test Condition B (5 Cycles -65°C to +125°C). |
| Vibration | MIL-STD-202F, Method 201A |
| Humidity | MIL-STD-202F Method 103B, Test Condition A: High RH (95%) and elevated temp (40°C) for 240 hours |
| Salt Spray | MIL-STD-202F Method 101D, Test Condition B |

Dimensions



Part Numbering System



Packaging

| Packaging Option | Packaging Specification | Quantity | Quantity & Packaging Code | Taping Width |
|-------------------|-------------------------|----------|---------------------------|------------------|
| 224 Series | | | | |
| Bulk | N/A | 5 | VX | N/A |
| Bulk | N/A | 5 | VXU | N/A |
| Bulk | N/A | 100 | HX | N/A |
| Bulk | N/A | 100 | HXU | N/A |
| Bulk | N/A | 1000 | MX | N/A |
| Bulk | N/A | 1000 | MX250U | N/A |
| Bulk | N/A | 1000 | MXF16 | N/A |
| Bulk | N/A | 1000 | MXF23 | N/A |
| Bulk | N/A | 1000 | MXU | N/A |
| Reel and Tape | EIA 296-E | 1500 | DRT1 | T1=52mm (2.062") |
| Reel and Tape | EIA 296-E | 1500 | DRT1U | T1=52mm (2.062") |
| Reel and Tape | EIA 296-E | 1500 | DRT2 | T2=63mm (2.500") |
| Reel and Tape | EIA 296-E | 1500 | DRT3 | T3=73mm (2.874") |
| Reel and Tape | EIA 296-E | 2500 | ERT1 | T1=52mm (2.062") |
| Reel and Tape | EIA 296-E | 2500 | ERT2 | T2=63mm (2.500") |
| Reel and Tape | EIA 296-E | 2500 | ERT3 | T3=73mm (2.874") |
| Bulk | N/A | 1000 | MX50LE | N/A |
| 225 Series | | | | |
| Bulk | N/A | 5 | VX | N/A |
| Bulk | N/A | 5 | VXU | N/A |
| Bulk | N/A | 100 | HX | N/A |
| Bulk | N/A | 100 | HXU | N/A |
| Bulk | N/A | 1000 | MX | N/A |
| Bulk | N/A | 1000 | MXU | N/A |