




232 Series, 5x20 mm, Medium-Acting Fuse



Agency Approvals

| Agency | Agency File Number | Ampere Range |
|--|--|-----------------------|
|  | Cartridge: NBK180509-JP1021 A/C NBK020609-JP1021 A/C | 1A – 5A 6.3A – 10A |
| | Leaded: NBK180509-JP1021 B/D NBK020609-JP1021 B/D | 1A – 5A 6.3A – 10A |
|  | SU05001-2015* SU05001-2001** | 1A – 10A |
|  | N/A | 1A – 10A |




* - 250 VAC

** - 125 VAC

Electrical Characteristics for Series

| % of Ampere Rating | Opening Time |
|--------------------|--------------------|
| 130% | 1 hour, Minimum |
| 160% | 1 hour, Maximum |
| 200% | 2 minutes, Maximum |

Electrical Characteristic Specifications by Item

| Amp Code | Amp Rating (A) | Voltage Rating (V) | Interrupting Rating | Nominal Cold Resistance (Ohms) | Nominal Melting I ² t (A ² sec) | Agency Approvals | | |
|----------|----------------|--------------------|--------------------------------|--------------------------------|---|---|---|---|
| | | | | | |  |  |  |
| 001. | 1 | 125/250 | 10kA @ 125VAC 100A @ 250VAC | 0.0923 | 1.37300 | x | x | x |
| 1.25 | 1.25 | 125/250 | | 0.0685 | 4.11000 | x | x | x |
| 01.6 | 1.6 | 125/250 | | 0.0537 | 6.96000 | x | x | x |
| 002. | 2 | 125/250 | | 0.0370 | 8.25000 | x | x | x |
| 02.5 | 2.5 | 125/250 | | 0.0291 | 13.87500 | x | x | x |
| 003. | 3 | 125/250 | | 0.0226 | 17.19000 | x | x | x |
| 3.15 | 3.15 | 125/250 | | 0.0215 | 21.9500 | x | x | x |
| 004. | 4 | 125/250 | | 0.0174 | 37.73000 | x | x | x |
| 005. | 5 | 125/250 | 300A @ 125VAC 100A @ 250VAC | 0.0134 | 56.72000 | x | x | x |
| 06.3 | 6.3 | 125/250 | | 0.0102 | 151.54000 | x | x | x |
| 008. | 8 | 125/250 | | 0.0076 | 182.58000 | x | x | x |
| 010. | 10 | 125/250 | | 0.0059 | 290.66500 | x | x | x |

To order 125Vac rated, please add part no. suffix

Description

The 232 Series Fuse is a 5x20mm, medium-acting, glass body cartridge fuse. It is specifically designed to meet the requirements of Appendix 3 of METI/PSE.

Features

- Available in cartridge and axial lead format
- RoHS compliant and lead-free

Applications

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

Additional Information



Datasheet



Resources



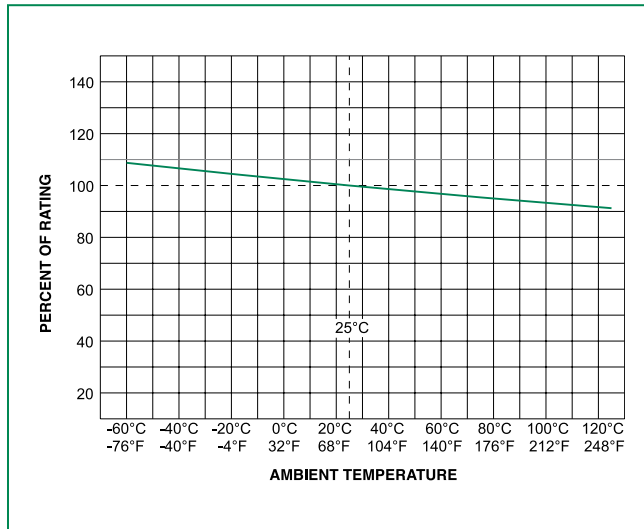
Samples



Accessories

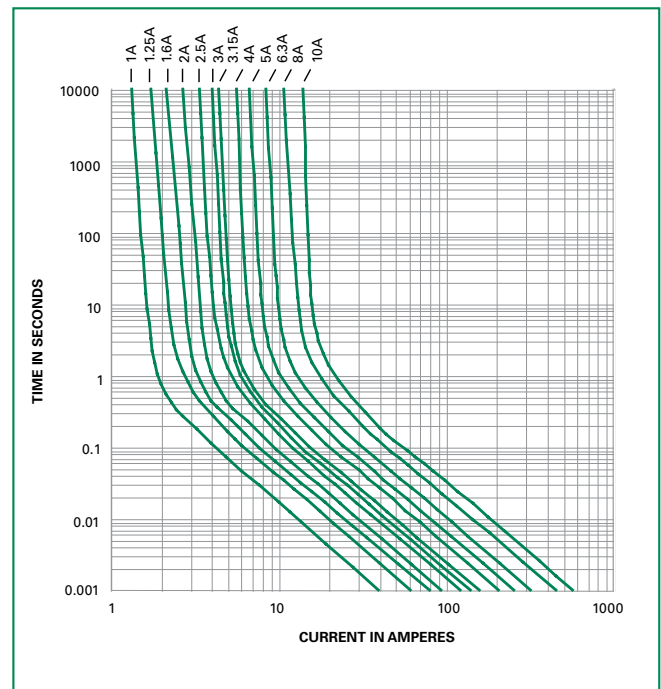
For recommended fuse accessories for this product series, see '[Recommended Accessories](#)' section.

Temperature Re-rating Curve

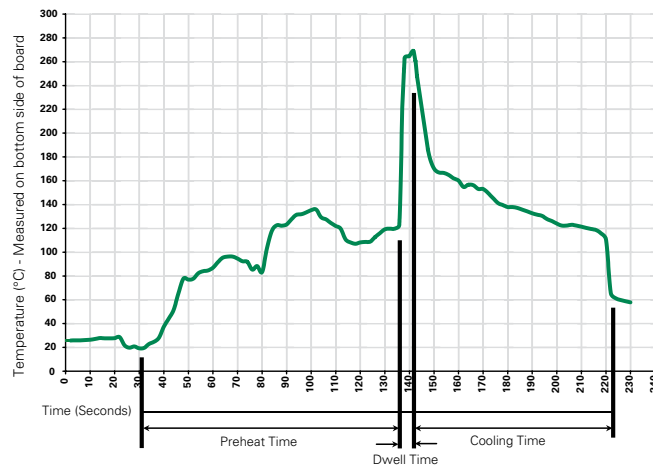


Note:
Derating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

Average Time Current Curves



Soldering Parameters - Wave Soldering



Recommended Process Parameters:

| Wave Parameter | Lead-Free Recommendation |
|---|--------------------------|
| Preheat: (Depends on Flux Activation Temperature) | |
| 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.

Packaging

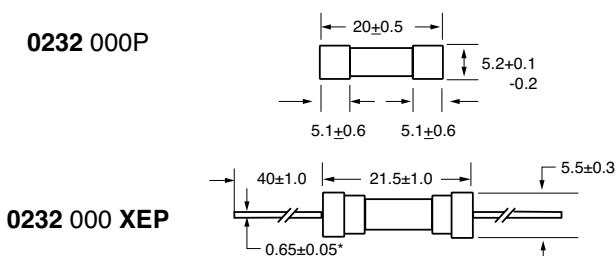
| Packaging Option | Packaging Specification | Quantity | Quantity & Packaging Code | Taping Width |
|-------------------|-------------------------|----------|---------------------------|--------------|
| 232 Series | | | | |
| Bulk | N/A | 1000 | MX | N/A |
| Bulk | N/A | 1000 | MXE | N/A |

Product Characteristics

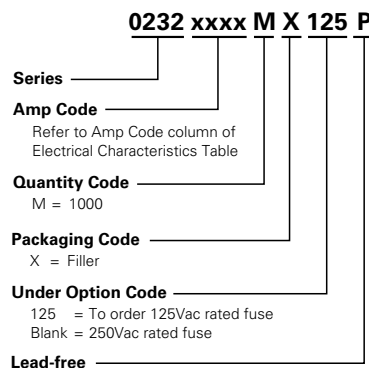
| | |
|--------------------------|--|
| Materials | Body: Glass Cap: Nickel-plated brass Leads: Tin-plated Copper |
| Terminal Strength | MIL-STD-202, Method 211. Test Condition A |
| Solderability | MIL-STD-202 Method 208 |
| Product Marking | Cap 1: Brand log, current and voltage ratings, and agency approval Cap 2: Blank |
| Packaging | Available in Bulk (M=1000 pcs/pkg) or on Tape/Reel (MRET1=1000 pcs/reel) |

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

Dimensions



Part Numbering System



Recommended Accessories

| Accessory Type | Series | Description | Max Application Voltage | Max Application Amperage |
|----------------|-------------------------|---|-------------------------|--------------------------|
| Holder | 345_ISF | Panel Mount Shock-Safe Fuseholder | 250 | 10 |
| | 345 | Shock-Safe Fuseholder with PC Mount, Solder Mount and Panel Mount options | | 20 |
| | 830 | PC Mount Shock-Safe Miniature Fuseholder | | 16 |
| Block | 520 | Metric OMNI-BLOK® Fuse Block | | 10 |
| | 646 | PC Mount Miniature Fuse Block | | 6.3 |
| | 658 | Surface Mount Miniature Fuse Block | | 10 |
| Clip | 520_W | PC Mount Miniature Fuse Clip | | 6.3 |
| | 111 | PC Board Mount Fuse Clip | | 10 |
| | 445 | PC Board Mount Fuse Clip | | 10 |

Notes:
 1. Do not use in applications above rating.
 2. Please refer to fuseholder data sheet for specific re-rating information.
 3. Please contact factory for applications greater than the max voltage and amperage shown.

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