



**THE DATASHEET OF
0219001.MXAP**



219XA Series

5×20mm, Time-Lag Fuse



Description

5×20mm time-Lag glass body cartridge fuse designed to IEC specification.

Features

- Designed to International IEC Standards for use globally
- Available in cartridge and axial lead form
- Meets the IEC 60127-2, Sheet 6 specification for time-Lag fuses
- 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



Resources



Accessories



Samples

Electrical Characteristics for Series

| % of Ampere Rating | Ampere Rating | Opening Time |
|--------------------|---------------|-----------------------------|
| 150% | 0.04A - 0.1A | 1 hours, Minimum |
| | 0.125A - 6.3A | 1 hours, Minimum |
| 210% | 0.04A - 0.1A | 2 minutes, Maximum |
| | 0.125A - 6.3A | 2 minutes, Maximum |
| 275% | 0.04A - 0.1A | 0.2 sec., Min; 10 sec. Max |
| | 0.125A - 6.3A | 0.6 sec., Min; 10 sec. Max |
| 400% | 0.04A - 0.1A | 0.04 sec., Min; 3 sec. Max |
| | 0.125A - 6.3A | .15 sec., Min; 3 sec. Max |
| 1000% | 0.04A - 0.1A | .01 sec., Min; 0.3 sec. Max |
| | 0.125A - 6.3A | .02 sec., Min; 0.3 sec. Max |









Agency Approvals

| Agency | Agency File/Certificate Number | Ampere Range |
|--------|--|-----------------|
| PS | Cartridge: NBK220604-E10480A DPC NBK230604-E10480A | 1A - 5A 6.3A |
| | Leaded: NBK220604-E10480B NBK230604-E10480B | 1A - 5A 6.3A |
| CCC | CCC self declaration No.:2020970207000068 | 0.040A-6.3A |
| cULus | E10480 | 0.040A - 6.3A |
| SP | 29862 | 0.125A - 6.3A |
| S | 1620075 | 0.040A - 6.3A |
| DVE | 40016080 | 0.040A - 6.3A |
| VD | KM41462 | 0.125A - 6.3A |
| CE | N/A | 0.040A - 6.3A |
| EAC | RU C-DE.HB26.B.01385/21 | |

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Electrical Characteristic Specifications by Item

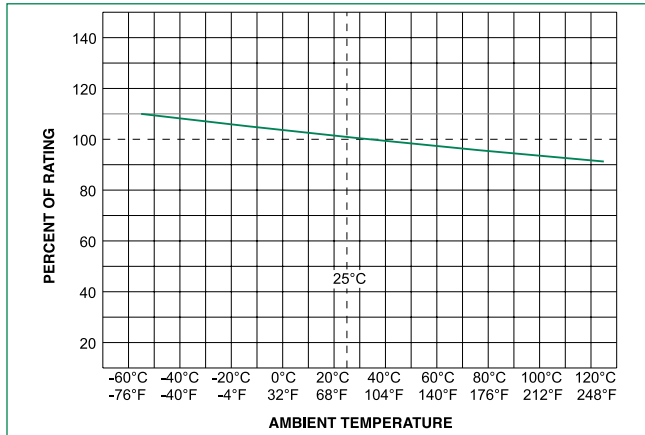
| Amp Code | Amp Rating (A) | Voltage Rating (V) | Interrupting Rating | Nominal Cold Resistance (Ohms) | Nominal Melting Pt (A ² sec) | Maximum Voltage Drop at Rated Current (mV) | Maximum Power Dissipation at 1.5In (W) | Agency Approvals | | | | | | | |
|----------|----------------|--------------------|---------------------|--------------------------------|---|--|--|---|---|---|---|---|---|---|---|
| | | | | | | | |  |  |  |  |  |  |  |  |
| .040 | 0.040 | 250 | 150A @ 250VAC | 31.8620 | 0.01640 | 4000 | 1.6 | | | x | | x | x | x | |
| .050 | 0.050 | 250 | | 21.2920 | 0.01700 | 3500 | 1.6 | | | x | | x | x | x | |
| .063 | 0.063 | 250 | | 14.2685 | 0.03800 | 3000 | 1.6 | | | x | | x | x | x | |
| .100 | 0.100 | 250 | | 6.0180 | 0.07900 | 2500 | 1.6 | | | x | | x | x | x | |
| .125 | 0.125 | 250 | | 4.2000 | 0.13000 | 2000 | 1.6 | x | | x | x | x | x | x | x |
| .160 | 0.160 | 250 | | 2.5500 | 0.31000 | 1900 | 1.6 | x | | x | x | x | x | x | x |
| .200 | 0.200 | 250 | | 1.6000 | 0.32000 | 1500 | 1.6 | x | | x | x | x | x | x | x |
| .250 | 0.250 | 250 | | 1.0495 | 0.54000 | 1300 | 1.6 | x | | x | x | x | x | x | x |
| .315 | 0.315 | 250 | | 0.8475 | 1.23000 | 1100 | 1.6 | x | | x | x | x | x | x | x |
| .400 | 0.400 | 250 | | 0.5350 | 1.40000 | 1000 | 1.6 | x | | x | x | x | x | x | x |
| .500 | 0.500 | 250 | | 0.3700 | 3.00000 | 900 | 1.6 | x | | x | x | x | x | x | x |
| .630 | 0.630 | 250 | | 0.2750 | 4.82000 | 300 | 1.6 | x | | x | x | x | x | x | x |
| .800 | 0.800 | 250 | | 0.1635 | 9.35000 | 250 | 1.6 | x | | x | x | x | x | x | x |
| 001. | 1.00 | 250 | | 0.1165 | 19.20000 | 150 | 1.6 | x | x | x | x | x | x | x | x |
| 1.25 | 1.25 | 250 | | 0.0817 | 27.15000 | 150 | 1.6 | x | x | x | x | x | x | x | x |
| 01.6 | 1.60 | 250 | | 0.0551 | 44.20000 | 150 | 1.6 | x | x | x | x | x | x | x | x |
| 002. | 2.00 | 250 | | 0.0452 | 92.70500 | 150 | 1.6 | x | x | x | x | x | x | x | x |
| 02.5 | 2.50 | 250 | | 0.0305 | 138.00000 | 120 | 1.6 | x | x | x | x | x | x | x | x |
| 3.15 | 3.15 | 250 | | 0.0231 | 202.00000 | 100 | 1.6 | x | x | x | x | x | x | x | x |
| 004. | 4.00 | 250 | | 0.0158 | 330.00000 | 100 | 1.6 | x | x | x | x | x | x | x | x |
| 005. | 5.00 | 250 | 0.0117 | 544.00000 | 100 | 1.6 | x | x | x | x | x | x | x | x | |
| 06.3 | 6.3 | 250 | 0.0107 | 1093.03500 | 100 | 1.6 | x | x | x | x | x | x | x | x | |

*4A-6.3A have an Interrupting rating 100A@350Vac.

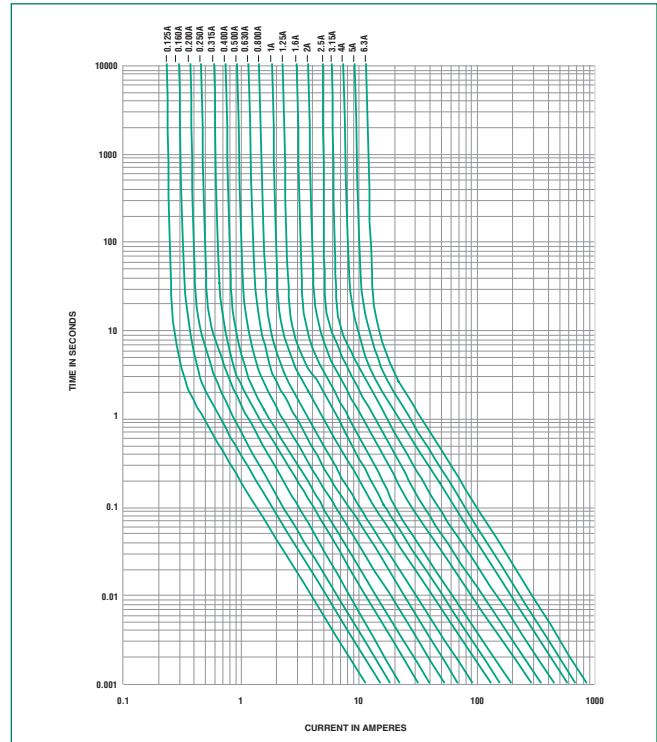
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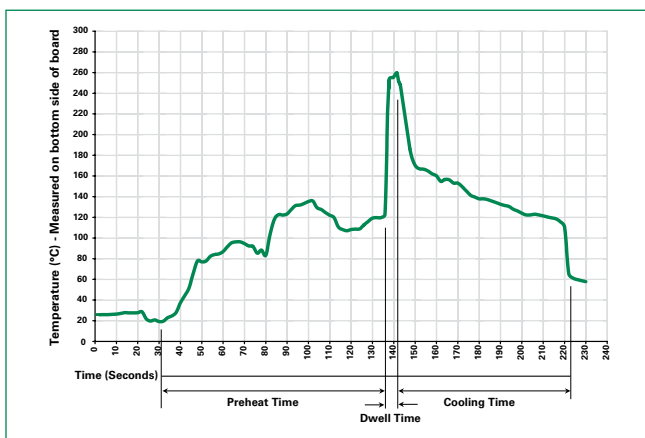
Temperature Re-rating Curve



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.

Packaging

| Packaging Option | Packaging Specification | Quantity | Quantity & Packaging Code | Taping Width |
|---------------------|-------------------------|----------|---------------------------|------------------|
| 219XA Series | | | | |
| Bulk | N/A | 1000 | MXA | N/A |
| Bulk | N/A | 1000 | MXAE | N/A |
| Reel and Tape | EIA 296-E | 1000 | MRAET1 | T1=53mm (2.087") |
| Bulk | N/A | 1000 | MXG | N/A |

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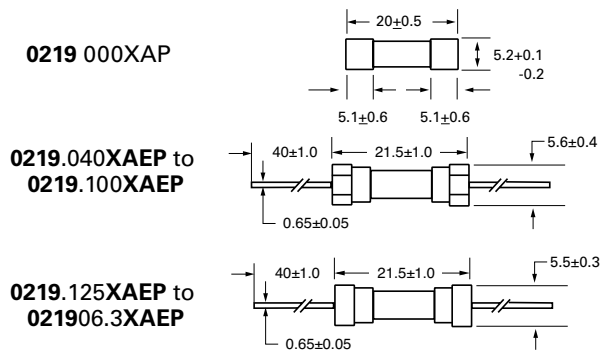
Product Characteristics

| | |
|--------------------------|---|
| 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 logo, current and voltage rating Cap 2: Agency approval markings Series |
| Packaging | Available in Bulk (M=1000 pcs/pkg) or on Tape/Reel (MRET1=1000 pcs/reel) |

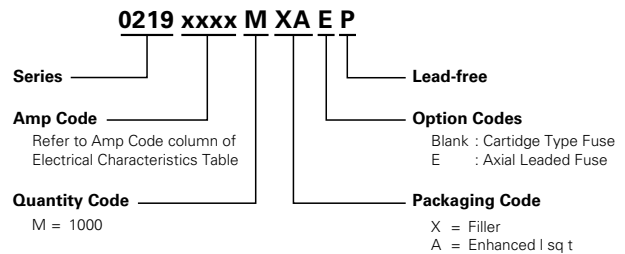
| | |
|------------------------------|--|
| Operating Temperature | -55°C to +125°C |
| Shock | MIL-STD-202, Method 107, Test Condition B: (5 cycles -65°C to +125°C) |
| Vibration | MIL-STD-202, Method 201 |
| Humidity | MIL-STD-202, Method 103, Test Condition A high RH (95%) and elevated temperature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

Dimensions

All dimensions in mm



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

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