

RoHS **REACH** **219XA Series, 5x20mm, Time-Lag (Slo-Blo®) Fuse**


Description

5x20mm time-Lag glass body cartridge fuse designed to IEC specification









Features

- Designed to International (IEC) Standards for use globally
- Meets the IEC 60127-2, Sheet 6 specification for time-Lag fuses
- Available in cartridge and axial lead form
- 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 |
|---|---|--|
|  | Cartridge Certifications: NBK220604-E10480A NBK230604-E10480A Leaded Certifications: NBK220604-E10480B NBK230604-E10480B | 1A – 5A 6.3A 1A – 5A 6.3A |
|  | Certifications: 2004010207110266 2003010207079982 | 125mA – 800mA 1A – 6.3A |
|  | Recognised File: E10480 Guide: JDYX2 | 40mA – 6.3A |
|  | File and Acc. Class: 029862_0_000 | 125mA – 6.3A |
|  | License: KM41462 | |
|  | File: 604904/604924 402708 310144 | 40mA – 100mA 125mA – 800mA 1A – 6.3A |
|  | License: 40016080 | 125mA – 6.3A |
|  | | 40mA – 6.3A |

Electrical Characteristics for Series

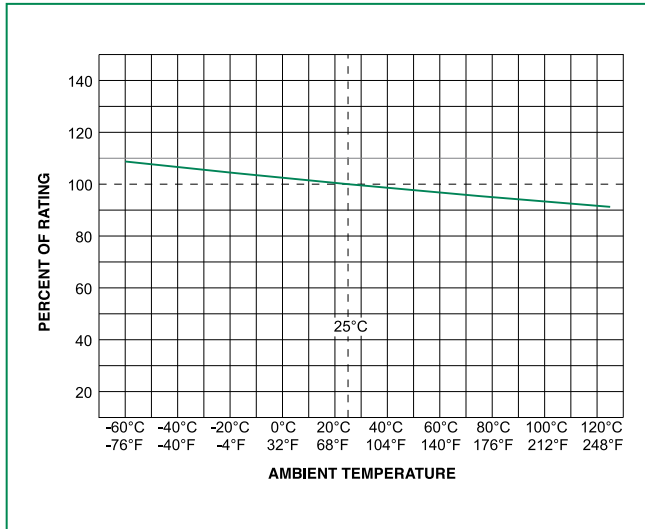
| % of Ampere Rating | Ampere Rating | Opening Time |
|--------------------|---------------|-----------------------------|
| 150% | 40mA – 100mA | 1 hours, Minimum |
| | 125mA – 6.3A | 1 hours, Minimum |
| 210% | 40mA – 100mA | 2 minutes, Maximum |
| | 125mA – 6.3A | 2 minutes, Maximum |
| 275% | 40mA – 100mA | 0.2 sec., Min; 10 sec. Max |
| | 125mA – 6.3A | 0.6 sec., Min; 10 sec. Max |
| 400% | 40mA – 100mA | 0.04 sec., Min; 3 sec. Max |
| | 125mA – 6.3A | .15 sec., Min; 3 sec. Max |
| 1000% | 40mA – 100mA | .01 sec., Min; 0.3 sec. Max |
| | 125mA – 6.3A | .02 sec., Min; 0.3 sec. Max |

219XA Series

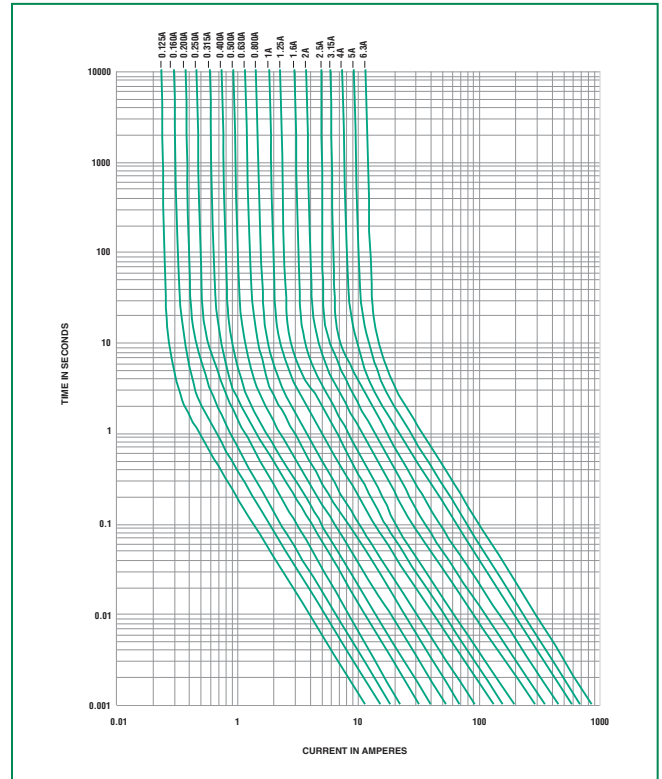
Electrical Characteristic Specifications by Item

| Amp Code | Amp Rating (A) | Voltage Rating (V) | Interrupting Rating | Nominal Cold Resistance (Ohms) | Nominal Melting I ² t (A ² sec) | Nominal Voltage Drop at Rated Current (mV) | Nominal Power Dissipation at Rated Current (W) | Agency Approvals | | | | | | | |
|----------|----------------|--------------------|---------------------|--------------------------------|---|--|--|--|---|---|---|---|---|---|---|
| | | | | | | | |  |  |  |  |  |  |  |  |
| .040 | 0.040 | 250 | 150A @ 250VAC | 31.8620 | 0.01100 | 4000 | 1.6 | | x | | x | | | x | |
| .050 | 0.050 | 250 | | 21.2920 | 0.01700 | 3500 | 1.6 | | x | | x | | | x | |
| .063 | 0.063 | 250 | | 14.2685 | 0.02850 | 3000 | 1.6 | | x | | x | | | x | |
| .100 | 0.100 | 250 | | 6.0180 | 0.07900 | 2500 | 1.6 | | 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 | 0.0117 | 1093.03500 | 100 | 1.6 | x | x | x | x | x | x | x | x | |

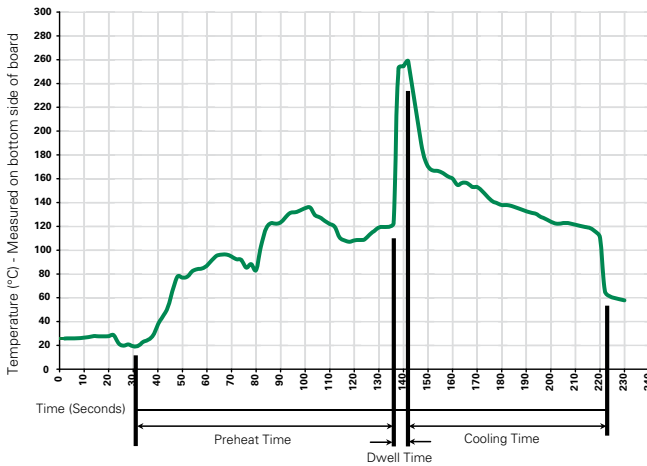
Temperature Derating Curve



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.

219XA Series

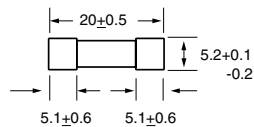
Product Characteristics

| | |
|--------------------------|---|
| Materials | Body: Glass Cap: Nickel Plated Brass Leads: Tin Plated Copper |
| Terminal Strength | MIL-STD-202G, Method 211A. Test Condition A |
| Solderability | Reference IEC 60127 Second Edition 2003-01 Annex A |
| 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) |

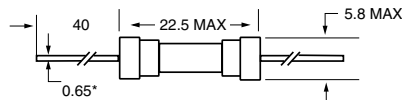
| | |
|------------------------------|--|
| Operating Temperature | -55°C to +125°C |
| Shock | MIL-STD-202G, Method 107G, Test Condition B: (5 cycles -65°C to +125°C) |
| Vibration | MIL-STD-202G, Method 201A |
| Humidity | MIL-STD-202G, Method 103B, Test Condition A high RH (95%) and elevated temperature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

Dimensions

0219 000XAP



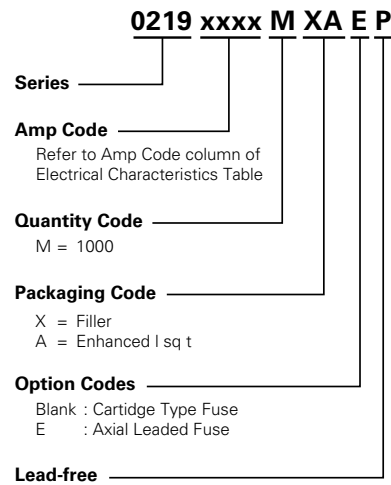
0219000XAEP



All dimensions in mm

Notes:
* Ratings above 6.3A have 0.8 mm dia lead

Part Numbering System



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 | N/A | 1000 | MRAET1 | T1=52mm (2.062") |