

RoHS  **234 Series, 5 x 20 mm, Medium-Acting Fuse**



Description

5x20mm medium-acting glass/ceramic body cartridge fuse designed to UL specification.






Features

- Designed to UL/CSA/ ANCE 248 Standard
- Available in cartridge and axial lead format
- Glass body for 1-3.5A, Ceramic body for 4-10A
- 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 Certificates: NBK290502-E10480 C NBK280602-E10480 E NBK280602-E10480 G | 1A – 3.5A 4A & 5A 6A – 10A |
| | Leaded Certificates: NBK290502-E10480 H NBK280602-E10480 F NBK280602-E10480 H | 1A – 3.5A 4A & 5A 6A – 10A |
|  | Certificates: SU05001 – 3001 SU05001 – 4001 SU05001 – 2016 | 1A – 3.15A 3.5A 4A – 10A |
|  | Listed File: E10480 Guide: JDYX | 1A – 10A |
| | File: 029862 Certificate Class: LR1422-01 | |
|  | | |
|  | | |

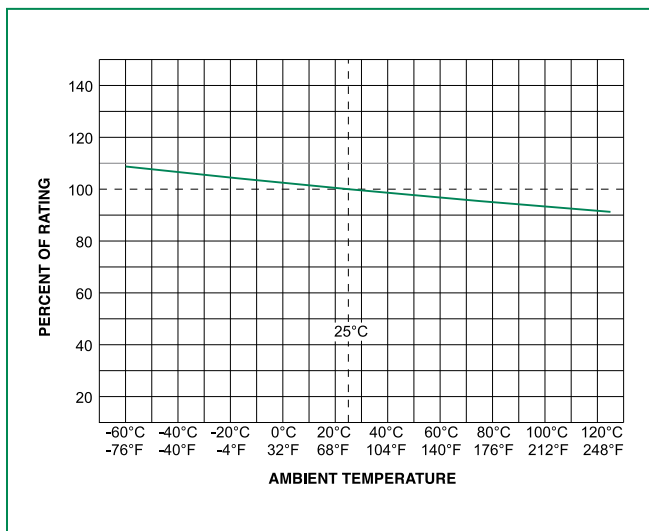
Electrical Characteristics for Series

| % of Ampere Rating | Ampere Rating | Opening Time |
|--------------------|---------------|----------------------------|
| 100% | 1 – 3.5 | 4 hours, Minimum |
| | 4 – 10 | 1 hour, Minimum |
| 135% | 1 – 3.5 | 3 sec., Min; 1 hr. Max |
| | 4 – 10 | 3 sec., Min; 1 hr. Max |
| 200% | 1 – 3.5 | 400ms., Min; 2.25 sec. Max |
| | 4 – 10 | 400ms., Min; 4 sec. Max |

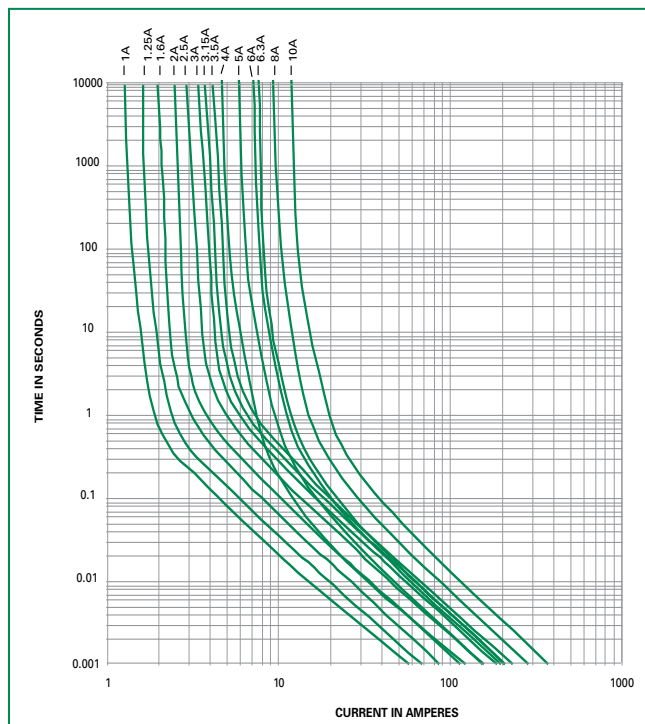
Electrical Characteristic Specification by Item

| Amp Code | Ampere Rating (A) | Voltage Rating (V) | Interrupting Rating | Nominal Cold Resistance (Ohms) | Nominal Melting I ² t (A ² sec) | Agency Approvals | | | | |
|----------|-------------------|--------------------|------------------------------------|--------------------------------|---|---|---|---|---|---|
| | | | | | |  |  |  |  |  |
| 001. | 1 | 250 | 100A @ 250 VAC 10000A @ 125 VAC | 0.1750 | 1.97500 | x | x | x | x | x |
| 1.25 | 1.25 | 250 | | 0.1262 | 3.39000 | x | x | x | x | x |
| 01.6 | 1.6 | 250 | | 0.0884 | 6.14000 | x | x | x | x | x |
| 002. | 2 | 250 | | 0.0684 | 9.97000 | x | x | x | x | x |
| 02.5 | 2.5 | 250 | | 0.0521 | 17.04500 | x | x | x | x | x |
| 003. | 3 | 250 | | 0.0431 | 26.2400 | x | x | x | x | x |
| 3.15 | 3.15 | 250 | | 0.0380 | 29.79500 | x | x | x | x | x |
| 03.5 | 3.5 | 250 | | 0.0322 | 36.27500 | x | x | x | x | x |
| 004. | 4 | 250 | | 0.0304 | 10.37000 | x | x | x | x | x |
| 005. | 5 | 250 | | 0.0214 | 20.64500 | x | x | x | x | x |
| 006. | 6 | 250 | 0.0194 | 33.01500 | x | x | x | x | x | |
| 06.3 | 6.3 | 250 | 0.0168 | 37.68500 | x | x | x | x | x | |
| 008. | 8 | 250 | 0.0144 | 80.67500 | x | x | x | x | x | |
| 010. | 10 | 250 | 0.0107 | 129.02500 | x | x | x | x | x | |
| | | | 200A @ 250 VAC 10000A @ 125 VAC | | | | | | | |

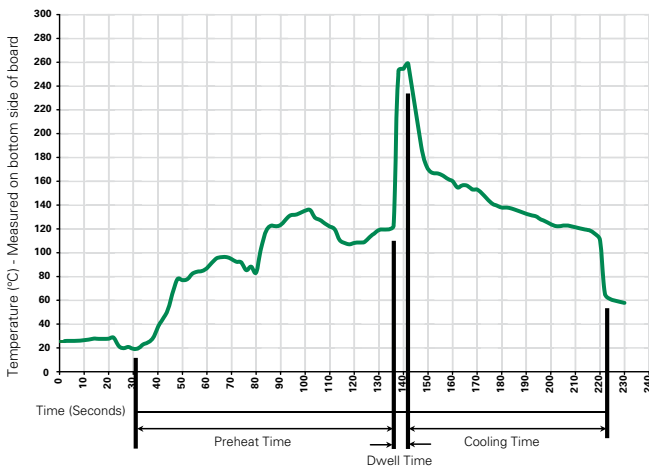
Temperature Derating Curve



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.

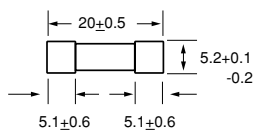
Product Characteristics

| | |
|--------------------------|--|
| Materials | Body: Glass(1A-3.5A), Ceramic(4A-10A) Cap: Nickel-plated brass Leads: Tin-plated Copper Filter: Sand (4A – 10A) |
| 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: Series and agency approval markings |
| Packaging | Available in Bulk (V=5, H=100, M=1000 pcs/pkg) or on Tape/Reel (MRET1=1000 pcs/reel) |

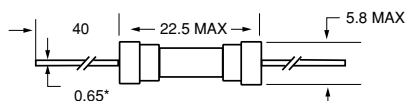
| | |
|------------------------------|---|
| Operating Temperature | -55°C to +125°C |
| Thermal Shock | MIL-STD-202G, Method 107G, Test Condition B: (5 cycles -65°C to +125°C) |
| Vibration | MIL-STD-202F Method 201A |
| Humidity | MIL-STD-202G, Method 103B, Test Condition A. high RH (95%) and elevated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

Dimensions

0234 000P



0234 000XEP

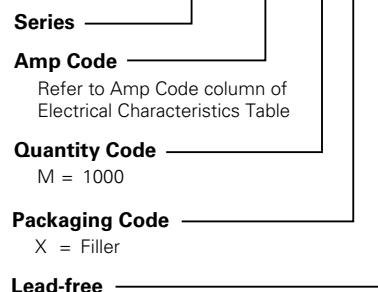


All dimensions in mm

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

Part Numbering System

0234 xxxx M X P



Packaging

| Packaging Option | Packaging Specification | Quantity | Quantity & Packaging Code | Taping Width |
|-------------------|-------------------------|----------|---------------------------|------------------|
| 234 Series | | | | |
| Bulk | N/A | 1000 | MX | N/A |
| Bulk | N/A | 1000 | MXE | N/A |
| Reel and Tape | EIA 296-E | 1000 | MRET1 | T1=52mm (2.062") |