

# Axial Lead & Cartridge Fuses

5x20 mm > Medium-Acting > 234 Series

## 234 Series, 5x20 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
- Glass body for 1-3.5A, Ceramic body for 4-10A
- 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.






### Agency Approvals

Agency	Agency File Number	Ampere Range
	Cartridge Certificates: NBK290502-E10480 C NBK280602-E10480 E NBK280602-E10480 G 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	
		

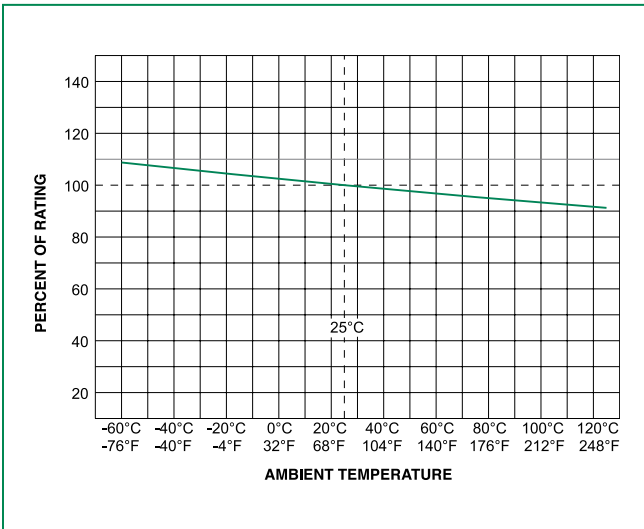
### Electrical Characteristics for Series

% 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

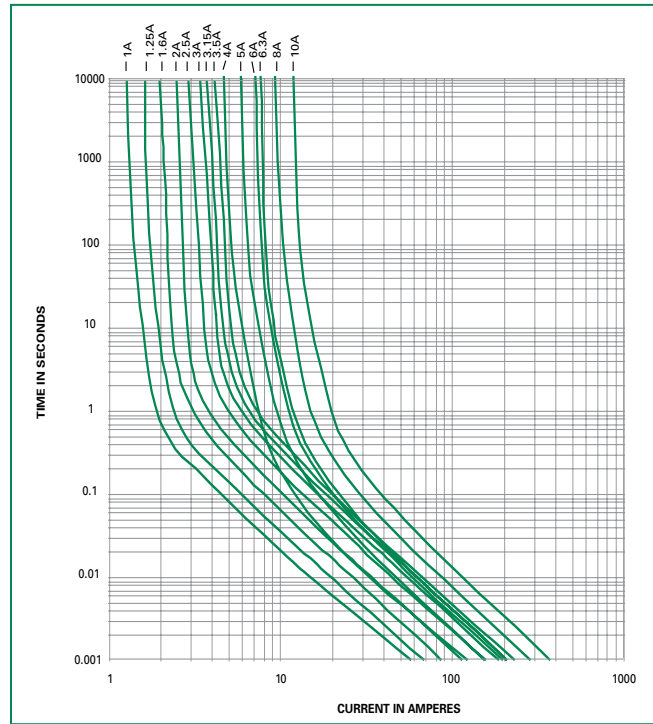
### Electrical Characteristic Specification by Item

Amp Code	Ampere Rating (A)	Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I <sup>2</sup> t (A <sup>2</sup> 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	200A @ 250 VAC 10000A @ 125 VAC	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

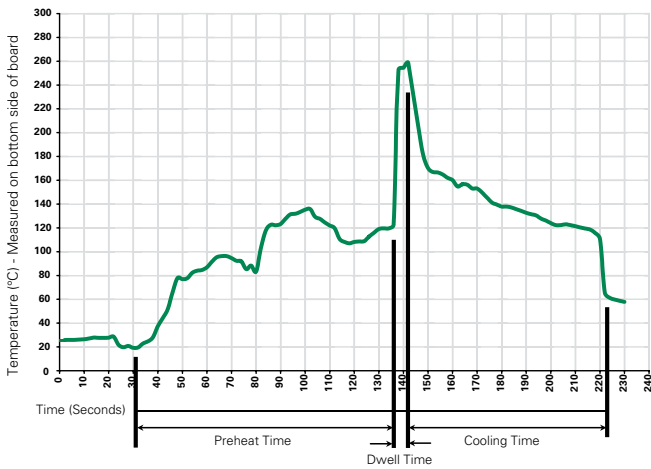
## Temperature Derating Curve



## Average Time Current Curves



## Soldering Parameters - Wave Soldering



### Recommended Process Parameters:

Wave Parameter	Lead-Free Recommendation
<b>Preheat:</b> (Depends on Flux Activation Temperature)	(Typical Industry Recommendation)
Temperature Minimum:	100° C
Temperature Maximum:	150° C
Preheat Time:	60-180 seconds
<b>Solder Pot Temperature:</b>	260° C Maximum
<b>Solder Dwell Time:</b>	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.**

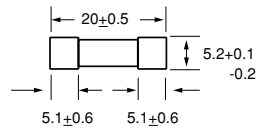
## Product Characteristics

<b>Materials</b>	Body: Glass(1A-3.5A), Ceramic(4A-10A) Cap: Nickel-plated brass Leads: Tin-plated Copper Filter: Sand (4A – 10A)
<b>Terminal Strength</b>	MIL-STD-202G, Method 211A, Test Condition A
<b>Solderability</b>	Reference IEC 60127 Second Edition 2003-01 Annex A
<b>Product Marking</b>	Cap 1: Brand logo, current and voltage rating Cap 2: Series and agency approval markings
<b>Packaging</b>	Available in Bulk (V=5, H=100, M=1000 pcs/pkg) or on Tape/Reel (MRET1=1000 pcs/reel)

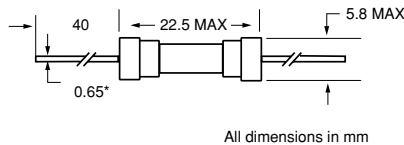
<b>Operating Temperature</b>	-55°C to +125°C
<b>Thermal Shock</b>	MIL-STD-202G, Method 107G, Test Condition B: (5 cycles -65°C to +125°C)
<b>Vibration</b>	MIL-STD-202F Method 201A
<b>Humidity</b>	MIL-STD-202G, Method 103B, Test Condition A. high RH (95%) and elevated temp (40°C) for 240 hours
<b>Salt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

## Dimensions

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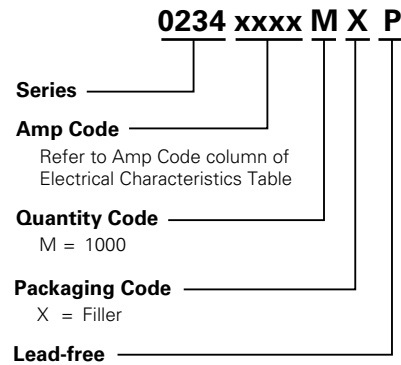


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Notes:  
\* Ratings above 6.3A have 0.8 mm dia lead

## Part Numbering System



## Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
<b>234 Series</b>				
Bulk	N/A	1000	MX	N/A
Bulk	N/A	1000	MXE	N/A
Reel and Tape	EIA 296-E	1000	MRET1	T1=53mm (2.087")