234 Series, 5×20 mm, Medium-Acting Fuse



Agency Approvals

Agency	Agency File Number	Ampere Range
A S S S S S S S S S S S S S S S S S S S	Cartridge: NBK040609-JP1021A NBK040609-JP1021C Leaded: NBK040609-JP1021B NBK040609-JP1021D	1A - 5A 6A - 10A 1A - 5A 6A - 10A
Œ	N/A	1A - 10A
<u></u>	SU05001-3001 SU05001-4001 SU05001-2016	1A - 3.15A 3.5A 4A - 10A
ų	E10480	1A - 10A
(Sfr)	29862	1A - 10A

Description

 $5{\times}20\text{mm}$ medium-acting glass/ceramic body cartridge fuse designed to UL specification.

Features

- Designed to UL/CSA/ ANCE 248-1 and 248-14 Standards
- Glass body for 1-3.5A, Ceramic body for 4-10A

RoHS 🔞 (E 🖲 🏵 🕼

- Available in cartridge and lead
 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.



Accessories

For recommended fuse accessories for this product series, see '<u>Recommended Accessories</u>' section.

Electrical Characteristics for Series

% of Ampere Rating	Ampere Rating	OpeningTime
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

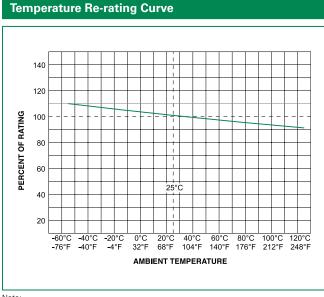
Electrical Characteristic Specification by Item Agency Approvals Nominal Cold Ampere Voltage Interrupting **Nominal Melting** Rating Rating Amp Code Resistance Œ ß PS (UL) (F) Rating I2t (A2 sec) (A) (Ohms) 001. 1 250 0.1750 1.97500 Х Х Х Х Х 250 1.25 125 2.06000 0.1262 Х Х Х Х Х 01.6 1.6 250 0.0884 6.14000 х х Х Х Х 100A @ 250 VAC 002 2 250 0.0684 9.97000 Х Х Х Х Х 2.5 10000A @ 125 VAC 02.5 250 0.0521 17.04500 х Х Х Х Х 250 0.0431 26.2400 003 З Х Х Х Х Х 3.15 250 29.79500 3.15 0.0380 Х Х Х Х Х 03.5 3.5 250 0.0322 36.27500 Х Х Х Х Х 250 004. 4 0.0304 10.37000 х Х х Х Х 250 5 0.0214 20.64500 005 х Х Х Х Х 006 250 200A @ 250 VAC 0.0194 33.01500 6 Х Х Х Х Х 6.3 10000A @ 125 VAC 0.0168 06.3 250 37.68500 Х Х Х Х Х 008 250 0.0144 80.67500 8 х Х Х х Х 250 010 10 0.0107 51.40000 ¥ ¥ Y

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Axial Lead & Cartridge Fuses

5×20 mm > Medium-Acting > 234 Series

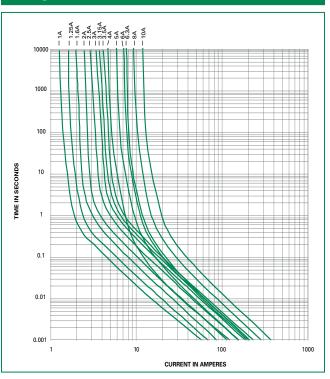




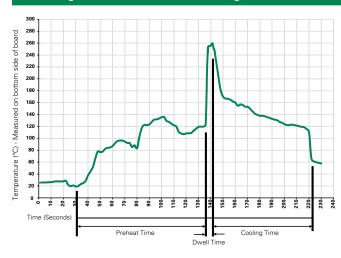
Note:

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





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 234 Series	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
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")

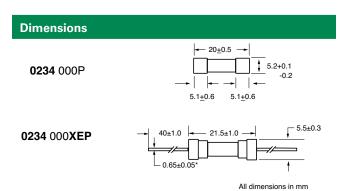


Axial Lead & Cartridge Fuses 5×20 mm > Medium-Acting > 234 Series

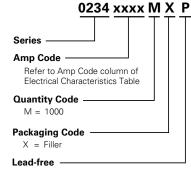
Product Characteristics

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-202, Method 211, Test Condition A	
Solderability	MIL-STD-202 Method 208	
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-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 temp (40°C) for 240 hours
Salt Spray	MIL-STD-202, Method 101, Test Condition B



Part Numbering System



Notes:

* Ratings above 6.3A have 0.8±0.05 diameter lead.

Recommended Accessories

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