

RoHS **239 Series, 5 x 20 mm, Slo-Blo® Fuse**



Description

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

Features

- Designed to UL/CSA/ANCE 248 Standard
- 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.

Electrical Characteristics for Series

% of Ampere Rating	Ampere Ratings	Opening Time
100%	All Ratings	4 hours, Minimum
135%		1 hour, Maximum
200%		5 seconds., Min; 2 min., Max

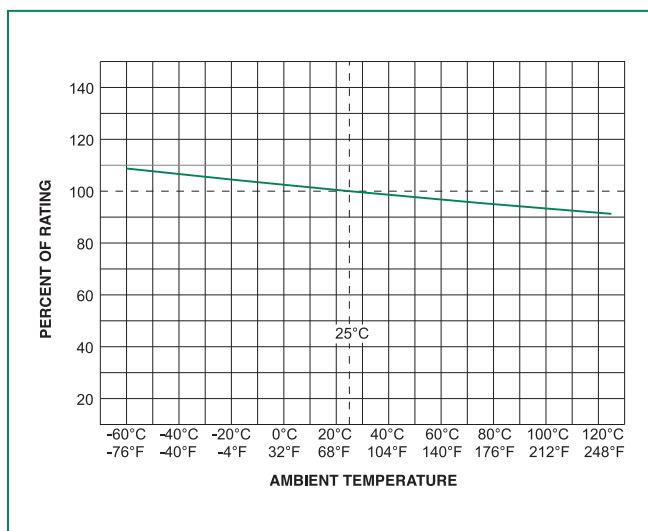
Agency Approvals

Agency	Agency File Number	Ampere Range
	Cartridge Certificates: NBK030609-JP1021A NBK190609-JP1021A NBK030609-JP1021B Leaded Certificates: NBK030609-JP1021C NBK190609-JP1021B NBK030609-JP1021D	1A – 3.5A 4A – 5A 7A
	Certificates: SU05001 – 2004A SU05001 – 2014A	200mA – 3.15A 4A – 7A
	Listed File: E10480 Guide: JDYX	80mA – 7A
	File: 029862 Certificates Class: LR1422-01	200mA – 3.15A 4A – 7A
		80mA – 7A

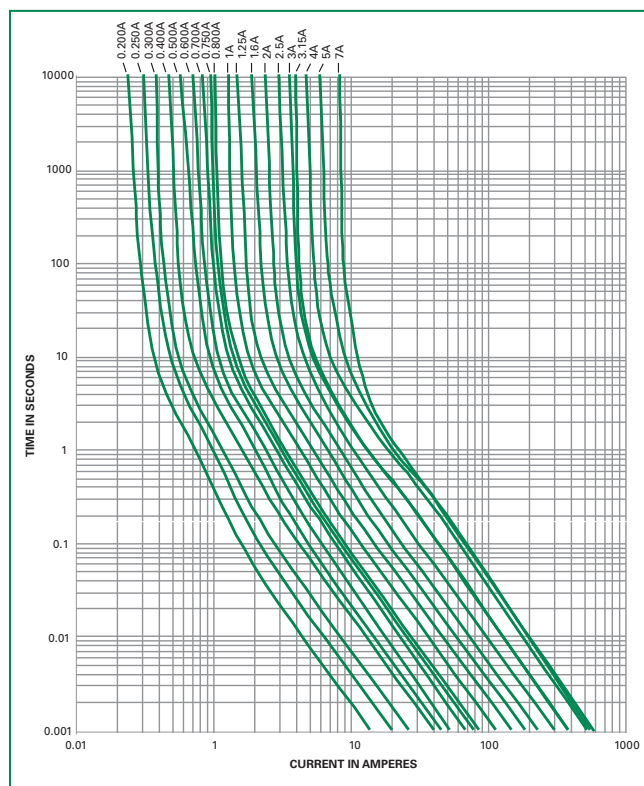
Electrical Characteristic Specification by Item

Amp Code	Amp Rating (A)	Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A ² sec)	Agency Approvals				
						UL	SP	PS E	CCC	CE
.080	0.08	250	35A @ 250 VAC	28.1750	0.02500	x				x
.100	0.1	250		17.3425	0.05500	x				x
.125	0.125	250		11.6000	0.08500	x				x
.150	0.15	250		8.1000	0.13000	x				x
.200	0.2	250	35A @ 250 VAC 10000A @ 125 VAC	3.8725	0.16500	x	x		x	x
.250	0.25	250		3.0700	0.34000	x	x		x	x
.300	0.3	250		2.3000	0.61500	x	x		x	x
.400	0.4	250		1.4750	1.49000	x	x		x	x
.500	0.5	250		0.9090	1.98500	x	x		x	x
.600	0.6	250		0.6990	2.41500	x	x		x	x
.700	0.7	250		0.5375	4.12000	x	x		x	x
.750	0.75	250		0.4710	5.42500	x	x		x	x
.800	0.8	250		0.4155	7.56500	x	x		x	x
.001	1	250		0.2965	11.29500	x	x	x	x	x
1.25	1.25	250		0.1980	19.52500	x	x	x	x	x
01.6	1.6	250		0.1205	30.43000	x	x	x	x	x
002.	2	250	10000A @ 125 VAC 100A @ 250 VAC	0.0943	50.58500	x	x	x	x	x
02.5	2.5	250		0.0583	79.70500	x	x	x	x	x
003.	3	250		0.04877	129.51000	x	x	x	x	x
3.15	3.15	250		0.0414	128.05000	x	x	x	x	x
03.2	3.2	250		0.0385	128.05000	x		x		x
03.5	3.5	250		0.0370	128.05000	x		x		x
004.	4	125		0.0312	270.703	x	x	x	x	x
005.	5	125	10000A @ 125 VAC	0.0199	302.836	x	x	x	x	x
007.	7	125		0.0114	305.758	x	x	x	x	x

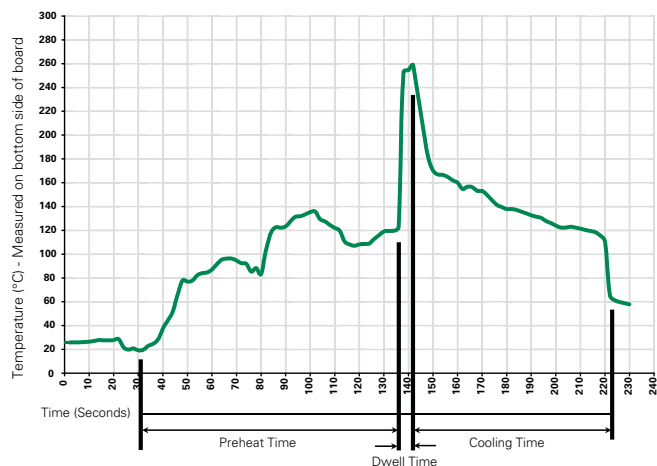
Temperature Derating Curve



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.

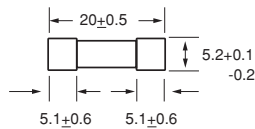
Product Characteristics

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: Series and agency approval markings

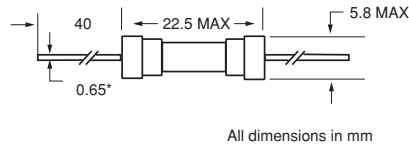
Operating Temperature	–55°C to +125°C
Thermal Shock	MIL-STD-202G, Method 107G, Test Condition B: (5 cycles –65°C to +125°C)
Vibration	MIL-STD-202G, Method 201A
Humidity	MIL-STD-202G, Method 103B, Test Condition A: high RH (95%) and elevated temp (40°C) for 240 hours
Salt Spray	MIL-STD-202G, Method 101D,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

Dimensions

0239 000P

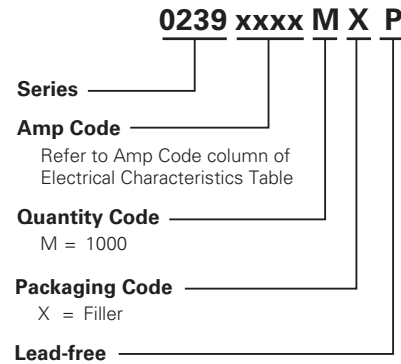


0239 000XEP



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
239 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")
Bulk	N/A	1000	MXB	N/A
Bulk	N/A	100	HX	N/A
Bulk	N/A	100	HXE	N/A

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Littelfuse:

[239.25](#) [239.800](#) [239001](#) [2391.25](#) [23901.6](#) [239002](#) [23902.5](#) [239003](#) [239004](#) [239005](#) [02393.15H-](#) [0239001.M-](#)
[0239.250MXE-](#) [0239.800HXE-](#) [0239001.H-](#) [0239.300MXE-](#) [0239.700M-](#) [023902.5M-](#) [0239003.H-](#) [0239.300M-](#)
[0239004.H-](#) [0239.400MXE-](#) [0239.750MXE-](#) [0239002.M-](#) [0239002.MXE-](#) [02393.15MXE-](#) [0239004.MXE-](#)
[0239007.MXE-](#) [0239.250HXE-](#) [0239.700H-](#) [0239003.M-](#) [02393.15HXE-](#) [0239002.HXE-](#) [02391.25HXE-](#)
[023901.6MXE-](#) [0239004.HXE-](#) [023902.5MXE-](#) [0239.600H-](#) [02391.25MXE-](#) [023901.6M-](#) [0239.250H-](#) [0239.400HXE-](#)
[0239.400M-](#) [02391.25H-](#) [023901.6H-](#) [0239.600MXE-](#) [0239.200MXE-](#) [02391.25M-](#) [0239.500MXE-](#) [0239.600HXE-](#)
[0239.800M-](#) [02393.15M-](#) [0239.200H-](#) [239.3](#) [239.5](#) [239.6](#) [239.75](#) [0239001.HXE-](#) [0239002.H-](#) [023901.6HXE-](#)
[0239.500H-](#) [0239.200HXE-](#) [0239.700HXE-](#) [0239.750H-](#) [0239.250M-](#) [0239.800MXE-](#) [023902.5H-](#) [0239005.M-](#)
[0239005.MXE-](#) [0239007.M-](#) [0239.200M-](#) [0239.600M-](#) [0239004.M-](#) [0239.300H-](#) [0239.750HXE-](#) [023902.5HXE-](#)
[0239003.HXE-](#) [0239.500M-](#) [0239.800H-](#) [0239.700MXE-](#) [0239005.HXE-](#) [0239001.MXE-](#) [0239.300HXE-](#) [0239.750M-](#)
[0239.400H-](#) [0239.500HXE-](#) [0239003.MXE-](#)