

RoHS  **235 Series, 5 x 20 mm, Fast-Acting Fuse**



### Description

5x20mm fast-acting 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.

### Agency Approvals

Agency	Agency File Number	Ampere Range
	Cartridge Certificates: NBK290502-E10480 G NBK290502-E10480 I Leaded Certificates: NBK290502-E10480 H NBK290502-E10480 J	1A – 5A 6A & 7A
	Certificates: SU05001 – 3007 SU05001 – 2002 SU05001 – 2003	100mA – 400mA 500mA – 3A 4A – 6A
	Listed File: E10480 Guide No: JDYX	100mA - 7A
	File No: 029862 Certificate Class No: LR1422-01	100mA – 3A 4A – 6A
		100mA – 7A

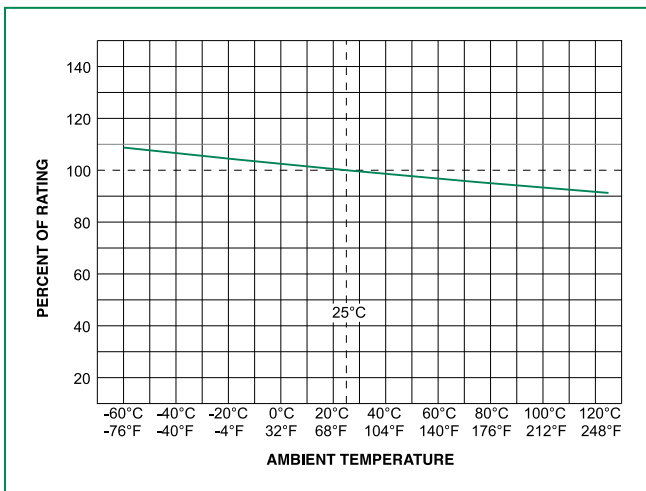
### Electrical Characteristics for Series

% of Ampere Rating	Ampere Rating	Opening Time
100%	100mA – 7A	4 hours, Minimum
135%		1 hour, Maximum
200%		5 seconds, Maximum

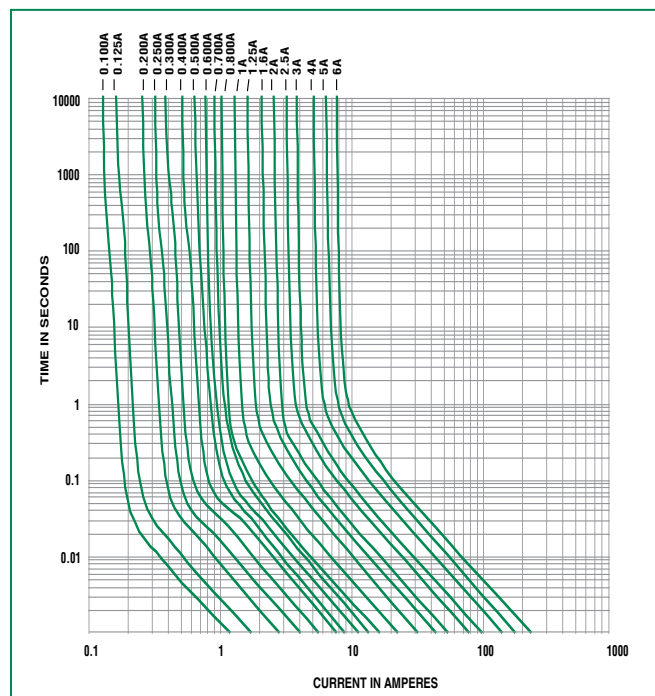
### Electrical Characteristic Specifications by Item

Amp Code	Amp 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				
						CE	UL	SF	PS E	RoHS
.100	0.1	250	35A@250Vac, 10000A@125Vac	8.4000	0.00312	x	x	x		x
.125	0.125	250		5.7500	0.00273	x	x	x		x
.200	0.2	250		3.1500	0.00867	x	x	x		x
.250	0.25	250		2.2500	0.01660	x	x	x		x
.300	0.3	250		1.6000	0.03215	x	x	x		x
.400	0.4	250		1.750	0.05845	x	x	x		x
.500	0.5	250		0.4265	0.06915	x	x	x		x
.600	0.6	250		0.3195	0.11200	x	x	x		x
.700	0.7	250		0.2625	0.15600	x	x	x		x
.800	0.8	250		0.1920	0.25300	x	x	x		x
001.	1	250	100A@250Vac, 10000A@125Vac	0.1530	0.46750	x	x	x	x	x
1.25	1.25	250		0.1055	1.08500	x	x	x	x	x
01.6	1.6	250		0.0758	2.02500	x	x	x	x	x
002.	2	250		0.0603	2.64500	x	x	x	x	x
02.5	2.5	250		0.0437	5.44500	x	x	x	x	x
003.	3	250		0.0347	8.39500	x	x	x	x	x
03.5	3.5	250	0.0331	17.14000	x	x		x		
004.	4	125	10000@125Vac	0.0246	17.14000	x	x	x	x	x
005.	5	125		0.0184	27.41000	x	x	x	x	x
006.	6	125		0.0148	47.32500	x	x	x	x	x
007.	7	125		0.0157	64.81500	x	x		x	

### Temperature Derating Curve

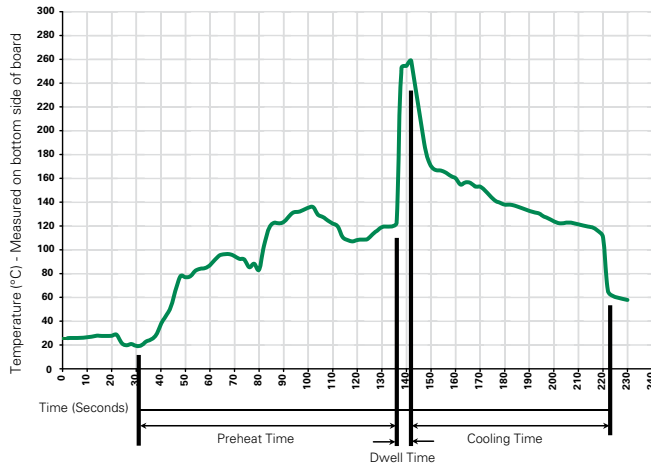


### Average Time Current Curves



Please contact Littelfuse for details on FC curve for 7A rating

## 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.**

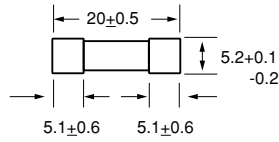
## Product Characteristics

<b>Materials</b>	Body: Glass Cap: Nickel-plated brass Leads: Tin-plated Copper
<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 (M=1000 pcs/pkg) or on Tape/Reel (MRET1=1000 pcs/reel)

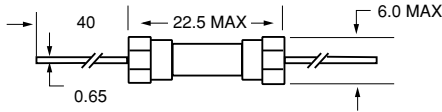
<b>Operating Temperature</b>	-55°C to +125°C
<b>Thermal Shock</b>	MIL-STD-202G, Method 107G, Test Condition B: (5 cycles -65°C + 125°C)
<b>Vibration</b>	MIL-STD-202G, Method 201A
<b>Humidity</b>	MIL-STD-202G, Method 103B, Test Condition A high RH (95%) and elevated temperature (40° C) for 240 hours
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

### Dimensions

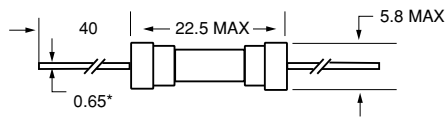
**0235000P**



**0235.100 XEP**  
to  
**0235.400 XEP**



**0235.500 XEP**  
to  
**0235006.XEP**

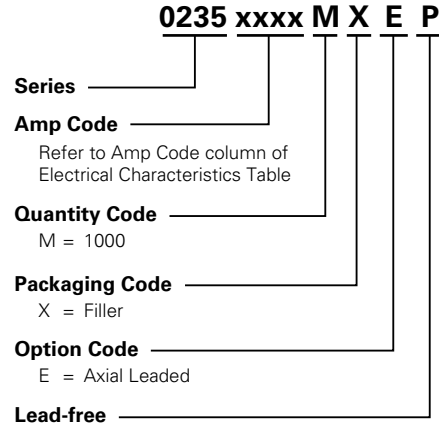


All dimensions in mm

Notes:

\* Ratings above 6.3A  
ø0.8 mm dia lead

### Part Numbering System



### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
<b>235 Series</b>				
Bulk	N/A	1000	MX	N/A
Bulk	N/A	1000	MXB	N/A
Reel and Tape	EIA 296-E	1000	MRET1	T1=52mm (2.062")

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Cartridge Fuses](#) category:*

*Click to view products by [Littelfuse](#) manufacturer:*

Other Similar products are found below :

[MBO-20](#) [MDA-V-1/100](#) [12C10X38GI](#) [AGA-V-2-1/2](#) [AGC-V-3-12-R](#) [AGY-50](#) [MSL-3](#) [MSL-4](#) [MSL-5](#) [BK1/C436-2A](#) [BK1-GMA-1-6-R](#)  
[BK1-GMA-200-R](#) [BK1GMA-6-R](#) [BK1/GMC-100-R](#) [BK1/GMC-1.5-R](#) [BK1-GMC-2-5-R](#) [BK1GMD-4-R](#) [BK1S500-250-R](#) [BK1S500-32-R](#)  
[BK1-S500-4-R](#) [BK1S500-5-R](#) [BK1-S505-1-R](#) [BK1-S506-2-R](#) [BK1-S506-3-15-R](#) [BK1/S506-63-R](#) [BK/ABC-5RX](#) [BK/AGW-B-4](#) [BK/AVX-](#)  
[1/4](#) [BK/C515S-250-R](#) [BK/MBO-20](#) [BK/MBO-8](#) [BK/MDM-3/4](#) [BK-MDQ-4](#) [BK/S505-V-2.5A](#) [BK/TDC120-15](#) [BK/TDC120-20](#)  
[BK/TDC122-45](#) [BP/MDL-7](#) [1C10X38AM](#) [S505-V-500MA](#) [SEF-1697-1-002](#) [AGA-V-7-1/2](#) [AGC-15WX](#) [AGC-2-1-2-R](#) [20.0M6.3X32F](#)  
[20C8X32GI](#) [GMC-50-R](#) [361.250](#) [MBO-8](#) [TDC121-30](#)