

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

Agency Approvals

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

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

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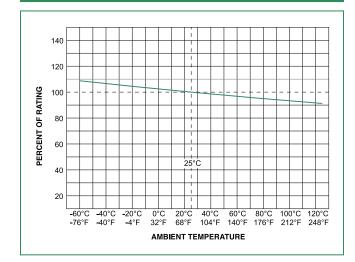
Axial Lead & Cartridge Fuses 5×20 mm > Fast-Acting > 235 Series



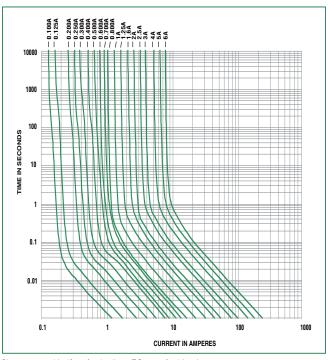
Electrical Characteristic Specifications by Item

		Voltage		Resistance	Nominal	Agency Approvals				
Amp Code	Amp Rating (A)	Rating (V)	Interrupting Rating		Melting l²t (A² sec)	Œ	(ÎF)	(PS E	
.100	0.1	250		8.4000	0.00312	X	X	х		Х
.125	0.125	250		5.7500	0.00273	Х	Х	х		Х
.200	0.2	250		3.1500	0.00867	Х	Х	х		Х
.250	0.25	250		2.2500	0.01660	Х	х	X		Х
.300	0.3	250	35A@250Vac,	1.6000	0.03215	Х	Х	X		Х
.400	0.4	250	10000A@125Vac	1.750	0.05845	х	х	x		X
.500	0.5	250		0.4265	0.06915	Х	х	×		Х
.600	0.6	250		0.3195	0.11200	Х	х	х		X
.700	0.7	250		0.2625	0.15600	Х	Х	х		Х
.800	0.8	250		0.1920	0.25300	х	х	х		X
001.	1	250		0.1530	0.46750	х	х	x	x	Х
1.25	1.25	250		0.1055	1.08500	х	х	x	x	Х
01.6	1.6	250		0.0758	2.02500	Х	х	X	X	Х
002.	2	250	100A@250Vac, 10000A@125Vac	0.0603	2.64500	Х	х	х	X	Х
02.5	2.5	250	10000,10,120,100	0.0437	5.44500	Х	х	х	X	Х
003.	3	250		0.0347	8.39500	х	х	×	x	Х
03.5	3.5	250		0.0331	17.14000	Х	х		X	
004.	4	125		0.0246	17.14000	Х	х	х	х	Х
005.	5	125	10000@105\/	0.0184	27.41000	Х	Х	х	х	Х
006.	6	125	10000@125Vac	0.0148	47.32500	Х	х	х	x	Х
007.	7	125		0.0157	64.81500	Х	X		X	

Temperature Rerating Curve



Average Time Current Curves

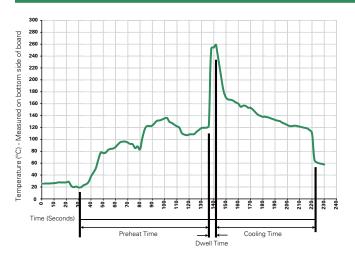


Please contact Littelfuse for details on T-C curve for 7A rating

235 Series



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 DwellTime:	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

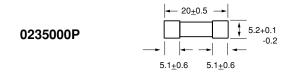
Materials	Body: Glass Cap: Nickel–plated brass Leads: Tin–plated Copper		
Terminal Strength	MIL-STD-202G, Method 211A. Test Condition A		
Solderability	Reference IEC 60127 Second Edition 2003-01 Annex A		
Product Marking	Cap 1: Brand logo, current and voltage rating Cap 2: Series and agency approval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

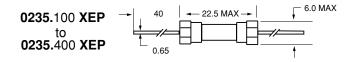
Operating Temperature	−55°C to +125°C		
Thermal Shock	MIL-STD-202G, Method 107G, Test Condition B: (5 cycles –65°C + 125°C)		
Vibration	MIL-STD-202G, Method 201A		
Humidity	MIL-STD-202G, Method 103B, Test Condition A high RH (95%) and elevated temperature (40°C) for 240 hours		
Salt Spray	MIL-STD-202G,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

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Dimensions

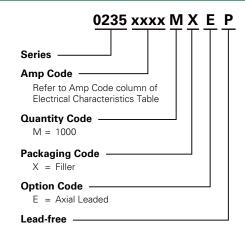






All dimensions in mm

Part Numbering System



Notes:

* Ratings above 6.3A ø0.8 mm dia lead

Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width					
235 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					