

213 Series, 5×20 mm, Time-Lag Fuse



Description

5×20mm time-Lag surge withstand glass body cartridge fuse designed to IEC specification.

Features

- Designed to International (IEC) Standards for use globally
- Available in cartridge and axial lead form
- Meets the IEC 60127-2, Sheet 3 specification for time-Lag fuses
- 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: NBK090205-E10480A NBK120802-E10480C Leaded: NBK090205-E10480B NBK120802-E10480D	1A-5A 6.3A 1A-5A 6.3A
	2003010207045592	0.200A – 6.3A
	E10480	0.200A – 6.3A
	029862	
	1403414	
	40015638	
	KM41462	0.200A – 6.3A
	SU05001-12002 SU05001-12001	3.15A-5A 6.3A
	N/A	0.200A – 6.3A

Electrical Characteristic for Series

% of Ampere Rating	Ampere Rating	Opening Time
150%	All Ratings	60 minutes, Minimum
210%		2 minutes, Maximum
275%		0.6 sec., Min.; 10 sec. Max.
400%		.15 sec., Min.; 3 sec. Max.
1000%		0.02 sec., Min.; 0.3 sec. Max.

Additional Information



Datasheet



Resources



Samples

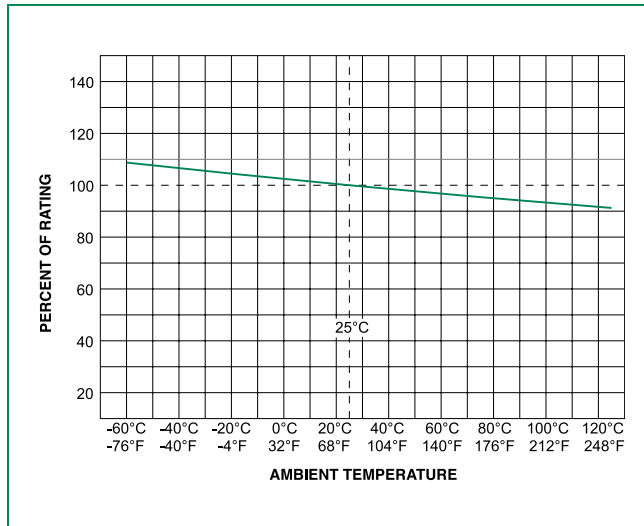
Electrical Characteristic Specifications by Item

Amp Code	Ampere Rating	Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec)	Maximum Voltage Drop at Rated Current (mV)	Maximum Power Dissipation at 1.5In (W)	Agency Approvals									
																	
.200	0.2	250	35A@250Vac	1.6000	0.22500	1500	1.6	x	x		x	x	x	x		x	
.250	0.25	250		1.0495	0.55500	1300	1.6	x	x		x	x	x	x		x	
.315	0.315	250		0.8475	1.14000	1100	1.6	x	x		x	x	x	x	x	x	
.400	0.4	250		0.5350	1.36000	1000	1.6	x	x		x	x	x	x	x	x	
.500	0.5	250		0.3700	2.90500	900	1.6	x	x		x	x	x	x	x	x	
.630	0.63	250		0.2750	4.80000	300	1.6	x	x		x	x	x	x	x	x	
.800	0.8	250		0.1635	9.42000	250	1.6	x	x		x	x	x	x	x	x	
001.	1	250		0.1165	19.20000	150	1.6	x	x	x	x	x	x	x	x	x	
1.25	1.25	250		0.0817	27.15000	150	1.6	x	x	x	x	x	x	x	x	x	
01.6	1.6	250		0.0551	44.20000	150	1.6	x	x	x	x	x	x	x	x	x	
002.	2	250		0.0452	92.70500	150	1.6	x	x	x	x	x	x	x	x	x	
02.5	2.5	250		0.0305	138.00000	120	1.6	x	x	x	x	x	x	x	x	x	
3.15	3.15	250		0.0231	202.00000	100	1.6	x	x	x	x	x	x	x	x	x	
004.	4	250	40A@250Vac	0.0170	226.50500	100	1.6	x	x	x	x	x	x	x	x	x	
005.	5	250	50A@250Vac	0.0116	314.00000	100	1.6	x	x	x	x	x	x	x	x	x	
06.3	6.3	250	63A@250Vac	0.0095	600.00000	100	1.6	x	x	x	x	x	x	x	x	x	

Axial Lead & Cartridge Fuses

5×20 mm > Time-Lag > 213 Series

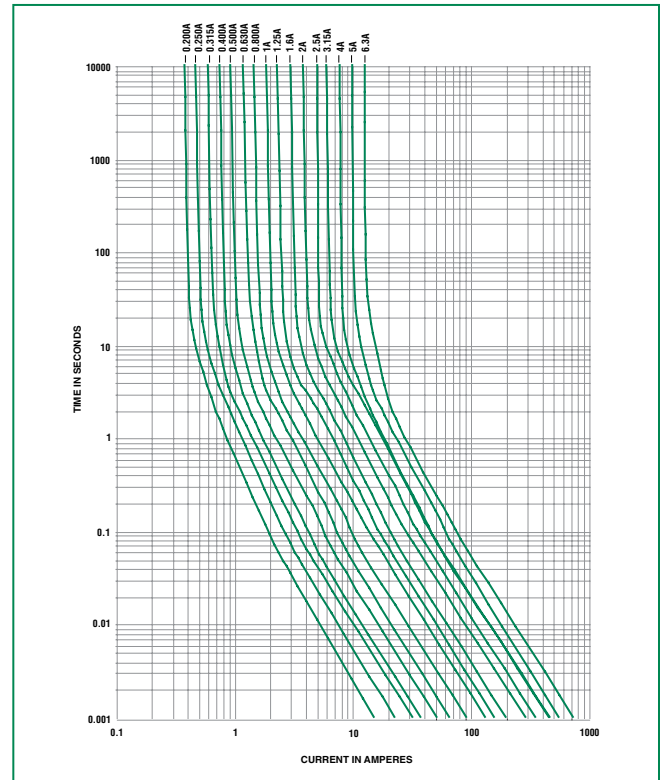
Temperature Re-rating Curve



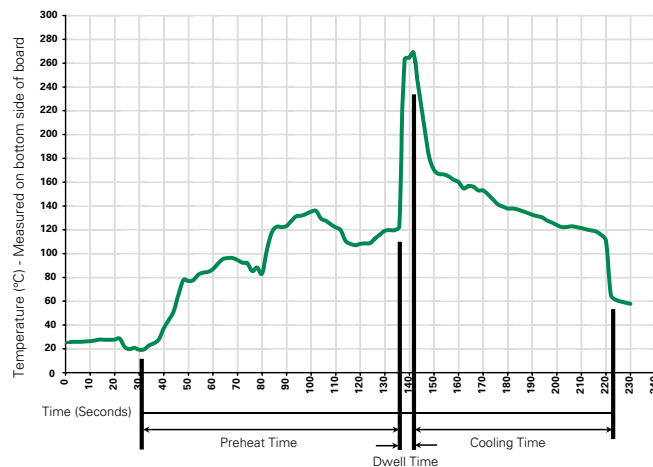
Note:

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

Average Time Current Curves



Soldering Parameters - Wave Soldering



Recommended Process Parameters:

Wave Parameter	Lead-Free Recommendation
Preheat: (Depends on Flux Activation Temperature)	
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.

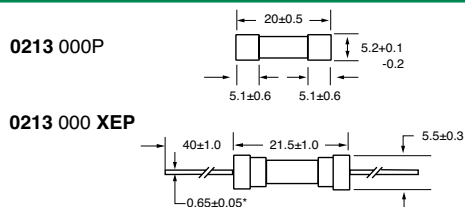
Note: These devices are not recommended for IR or Convection Reflow process.

Product Characteristics

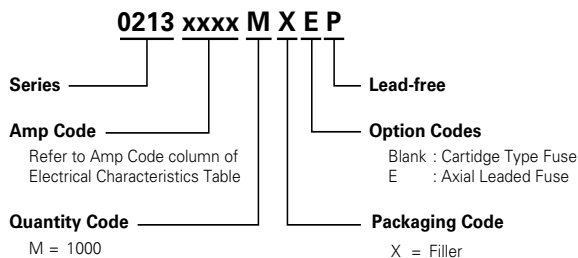
Material	Body: Glass Cap: Nickel-plated brass Leads: Tin-plated Copper
Terminal Strength	MIL-STD-202, Method 211, Test Condition A
Solderability	MIL-STD-202, Method 208
Product Marking	Cap1: Brand logo, current and voltage Cap2: Agency approval marks Series
Packaging	Available in Bulk (M=1000 pcs/pkg) or on Tape/Reel (MRET1=1000 pcs/reel)

Operating Temperature	–55°C to +125°C
Thermal Shock	MIL-STD-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 temperature (40°C) for 240 hours.
Salt Spray	MIL-STD-202, Method 101, Test Condition B

Dimensions



Part Numbering System



Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
213 Series				
Bulk	N/A	1000	MX	N/A
Bulk	N/A	1000	MXE	N/A
Reel and Tape	N/A	1000	MRET1	T1=53mm (2.087")
Bulk	N/A	1000	MXG	N/A
Bulk	N/A	1000	MXB	N/A
Bulk	N/A	100	HX	N/A

Mouser Electronics

Authorized Distributor

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

Littelfuse:

[021302.5MRET1P](#) [0213.250MXEP](#) [02133.15MXEP](#) [0213.630MXEP](#) [0213005.MXEP](#) [0213004.MXEP](#)
[021302.5MXP](#) [021306.3MXP](#) [0213.800MXEP](#) [0213004.MXP](#) [0213.200MXP](#) [0213.500MXEP](#) [02133.15MXP](#)
[021301.6MXEP](#) [0213001.MXEP](#) [0213002.MXEP](#) [021301.6MXP](#) [02131.25MXP](#) [0213.250MXP](#) [021306.3MXEP](#)
[021302.5MXEP](#) [0213001.MRET1P](#) [02131.25MXBP](#) [0213.400MXP](#) [02131.25MXEP](#) [0213.630MXP](#) [0213.500MXP](#)
[0213005.MXP](#) [0213.315MXP](#) [0213002.MXP](#) [0213.400MXEP](#) [0213.800MXP](#) [0213.200MXEP](#) [0213.315MXEP](#)
[0213001.MXP](#) [021301.6MRET1P](#) [0213002.MRET1P](#) [0213004.MRET1P](#) [0213.250MRET1P](#) [02131.25MRET1P](#)
[02133.15MRET1P](#) [02133.15MXBP](#) [0213.250TXP](#) [0213.800TXP](#) [0213002.TXP](#) [0213.315TXP](#) [0213005.TXP](#)
[02133.15HXP](#) [021306.3MRET1P](#) [021306.3TXP](#) [0213.200MXBP](#) [0213.250MXBP](#) [0213.315MXBP](#) [0213.400MXBP](#)
[0213.500MRET1P](#) [0213.500MXBP](#) [0213.630MXBP](#) [021302.5MXBP](#) [021302.5TXP](#) [02131.25TXP](#) [02133.15TXP](#)
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[0213005.MXBF61P](#)