213 Series

5×20 mm, Time-Lag Fuse



Additional Information

Resources | Accessories | Samples

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.

Description

The 213 Series is a 5x20mm time-lag, surge-withstand, glass body cartridge fuse that is designed to IEC specifications.

Features & Benefits

- Conforms to EN/IEC/K/J 60127-1 and EN/IEC/K/J 60127-2
- Available in cartridge and axial lead form
- Meets the IEC 60127-2, Sheet 3 specification for time-Lag fuses
- RoHS compliant and lead-free.
- Recognized to UL/CSA/NMX 248-1 and UL/CSA/NMX 248-14
- Conforms to GB 9364.1 and GB 9364.2
- CE Mark indicates compliance with Low-Voltage and RoHS Directives.

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
	2020970207000056	0.200A – 6.3A
	E10480	0.200A – 6.3A
	029862	
	1914693	
	40015638	0.200A – 6.3A
	KM41462	
	SU05001-12002 SU05001-12001	3.15A-5A 6.3A
	N/A	0.200A – 6.3A

Electrical Characteristic Specifications by Item

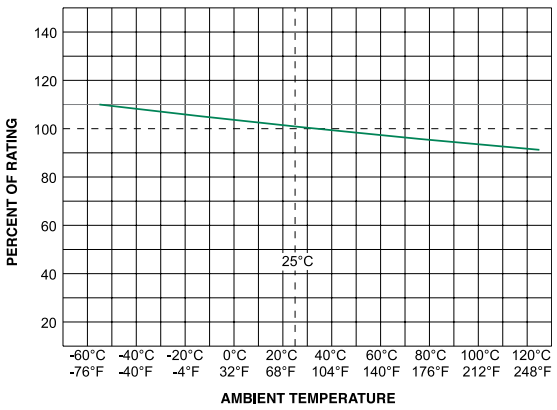
Amp Code	Ampere Rating	Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A^2 sec)	Maximum Voltage Drop at Rated Current(mV)	Maximum Power Dissipation at 1.5In (W)	Agency Approvals								
.200	0.2	250	35A@250Vac	1.6000	0.22500	1500	1.6	x	x	-	x	x	x	x	-	x
.250	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
.400	0.4	250		0.5350	1.36000	1000	1.6	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
.630	0.63	250		0.2750	4.80000	300	1.6	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
1.00	1	250		0.1165	19.20000	150	1.6	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
1.60	1.6	250		0.0551	44.20000	150	1.6	x	x	x	x	x	x	x	-	x
2.00	2	250		0.0452	92.70500	150	1.6	x	x	x	x	x	x	x	-	x
2.50	2.5	250		0.0305	138.00000	120	1.6	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
4.00	4	250	40A@250Vac	0.0170	226.50500	100	1.6	x	x	x	x	x	x	x	x	x
5.00	5	250	50A@250Vac	0.0116	314.00000	100	1.6	x	x	x	x	x	x	x	x	x
6.30	6.3	250	63A@250Vac	0.0095	600.00000	100	1.6	x	x	x	x	x	x	x	x	x

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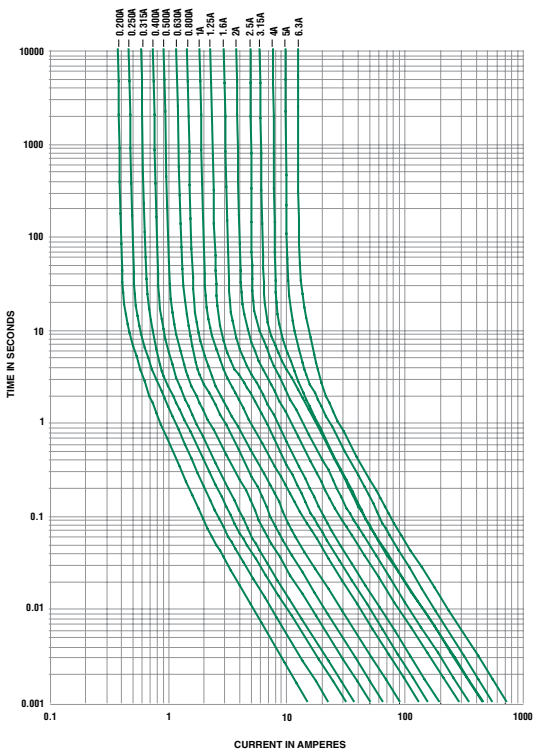
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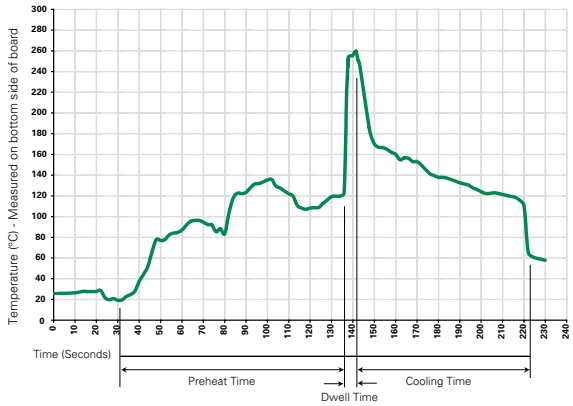
Temperature Re-rating Curve



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.

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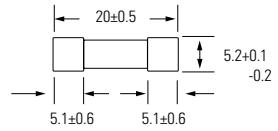
Product Characteristics

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)

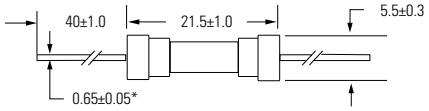
Operating Temperature	–55°C to +125°C
Thermal Shock	MIL-STD-202, Method 107, Test Condition B: (5 cycles –65°C to +125°C)
Vibration	MIL-STD-202, Method 201
Humidity	MIL-STD-202, Method 103, Test Condition A. High RH (95%) and elevated temperature (40°C) for 240 hours.
Salt Spray	MIL-STD-202, Method 101,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

Dimensions

0213 000P



0213 000 **XEP**



Note:
- All dimensions in mm

Part Numbering System

0213 xxxx M X E P

- **Series**
- **Amp Code** — Refer to Amp Code column of Electrical Characteristics Table
- **Quantity Code** — M = 1000
- **Packaging Code** — X = Filler
- **Option Codes** — Blank : Cartidge Type Fuse; E : Axial Leaded Fuse
- **Lead-free**

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

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