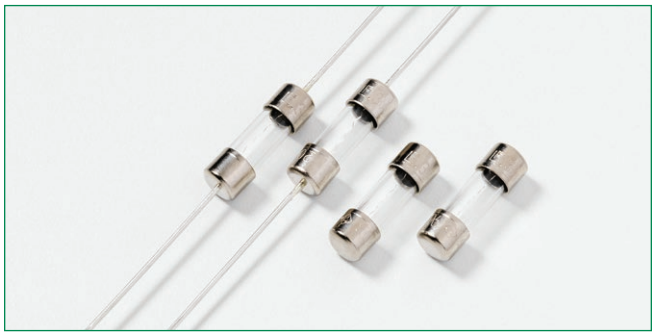
209 Series Lead-Free 2AG, Slo-Blo® Fuse



Agency Approvals

Agency	Agency File Number	Ampere Range
c UL us	E10480	0.25A - 7A
PS E	Cartridge	
	NBK200405-E10480C NBK110512-E10480A NBK190619-E10480A	1A - 3.5A 4A - 5A 6A - 7A
	Axial Leads	
	NBK200405-E10480D NBK110512-E10480B NBK190619-E10480B	1A - 3.5A 4A - 5A 6A -7A
CE	N/A	0.250A - 7A

Additional Information

Datasheet | Resources | Samples | Accessories

For recommended fuse accessories for this product series, see 'Recommended Accessories' section.

Description

Littelfuse 209 Series (2AG) 350V, Slo-Blo® Fuses are available in cartridge form or with axial leads. This series provides the same performance characteristics as its 3AG counterpart, while occupying one-third the space. Sleeved fuses are available.

Features

- Recognized to UL/CSA/NMX 248-1 and UL/CSA/NMX 248-14
- Conforms to DENAN's Appendix 3
- Available in cartridge and axial lead form and with various forming dimensions
- RoHS compliant and Lead-free

Applications

- Electronic Lighting Ballasts

Electrical Characteristics for Series

% of Ampere Rating	Opening Time
100%	4 Hours, Min.
135%	1 Hour, Max.
200%	3 Sec. Min. ; 20 Sec. Max.

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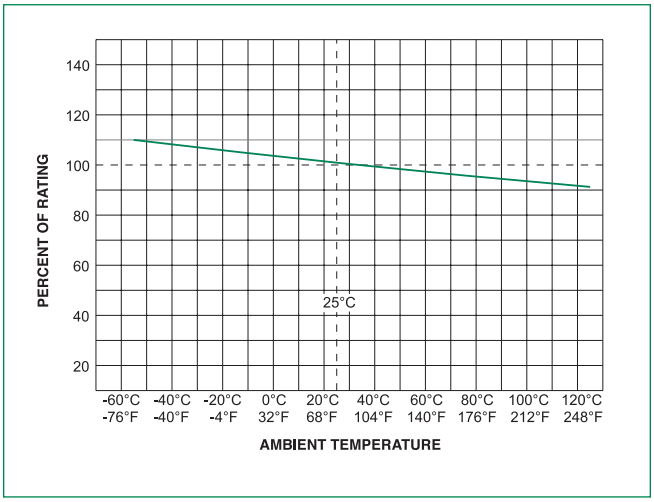
Axial Lead & Cartridge Fuses

2AG > Slo-Blo® Fuse > 209 Series

Electrical Characteristic Specifications by Item

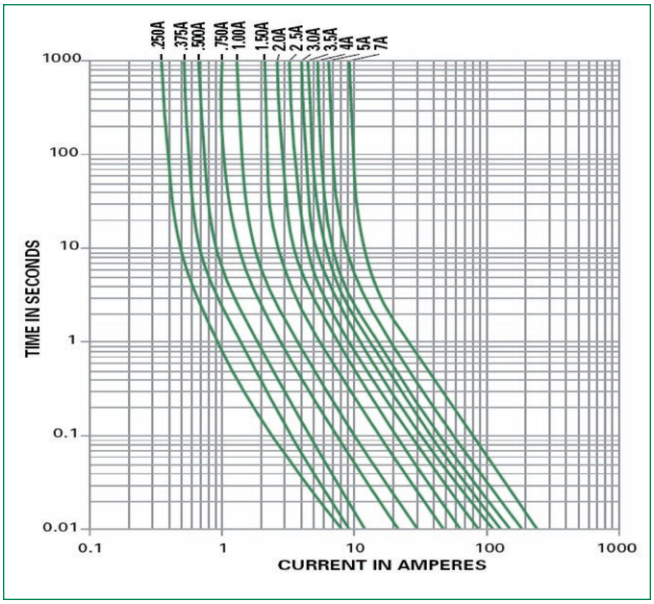
Amp Code	Ampere Rating (A)	Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A^2 sec)	Agency Approvals		
						c UL us	PS E	CE
.250	0.25	350	100A @ 350Vac	2.410	0.216	x	-	x
.375	0.375	350		1.170	0.87	x	-	x
.500	0.5	350		0.688	1.60	x	-	x
.600	0.6	350		0.477	1.750	x	-	x
.750	0.75	350		0.340	2.950	x	-	x
.800	0.8	350		0.304	3.450	x	-	x
001.	1	350		0.210	5.640	x	x	x
1.25	1.25	350		0.1460	16.2	x	x	x
01.5	1.5	350		0.1077	20.8	x	x	x
002.	2	350		0.0689	30.0	x	x	x
2.25	2.25	350		0.0567	39.0	x	x	x
02.5	2.5	350		0.0502	70.0	x	x	x
003.	3	350		0.0383	77.0	x	x	x
03.5	3.5	350		0.0312	110	x	x	x
004.	4	350		0.0258	148	x	x	x
005.	5	350		0.0186	267	x	x	x
006.	6	350		0.0141	380	x	x	x
007.	7	350		0.0116	464	x	x	x

Temperature Re-rating Curve



Note:
Rerating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

Average Time Current Curves



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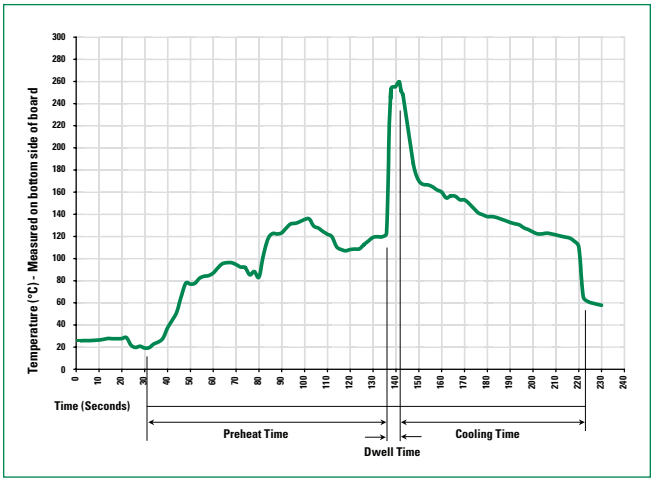
Axial Lead & Cartridge Fuses

2AG > Slo-Blo® Fuse > 209 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 Dwell Time:	2-5 seconds

Recommended Hand-Solder Parameters:

Solder Iron Temperature: 350°C +/- 5°C
Heating Time: 5 seconds max.

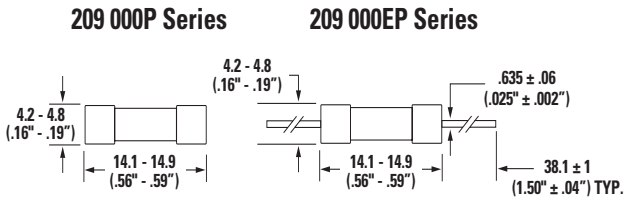
Note: These devices are not recommended for IR or Convection Reflow process.

Product Characteristics

Materials	Body : Glass Cap : Nickel–plated brass Leads: Tin–plated Copper
Terminal Strength	MIL-STD-202, Method 211, Test Condition A
Solderability	MIL-STD-202 method 208
Product Marking	Cap1 : Brand logo, current and voltage ratings Cap2 : Series and agency approval marks

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 temp (40°C) for 240 hours
Salt Spray	MIL-STD-202, Method 101, Test Condition B

Dimensions



Part Numbering System

0209 xxxx M X E P

Series

Current Rating Code
Refer to Amp Code column of Electrical Characteristics Table

Quantity Code
M = 1000

Packaging Code
X = Loose Pack

Option Codes
Blank = Cartridge Type Fuse
E = Axial Leaded Fuse

Lead-free

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Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
209 Series				
Bulk	N/A	1000	MX	N/A
Bulk	N/A	1000	MXE	N/A
Reel and Tape	EIA 296-E	1500	DRT1	T1=53mm (2.087")

Recommended Accessories

Accessory Type	Series	Description	Max Application Voltage	Max Application Amperage
Holder	150	In-Line Fuseholder	350	10
	286	Panel Mount Flip-Top Shock-Safe Fuseholder	250	10
Block	254	OMNI-BLOK® Fuse Block	400	10
Clip	111	PC Board Mount Fuse Clip	250	10

Notes:
1. Do not use in applications above rating.
2. Please refer to fuseholder data sheet for specific re-rating information.
3. Please contact factory for applications greater than the max voltage and amperage shown.

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