

2AG > Slo-Blo® Fuse > 209 Series

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



Agency Approvals					
Agency	Agency File Number Ampere Ra				
c SL us	E10480 0.25 - 7A				
	Cartridge				
	NBK200405-E10480C	1A - 3.5A			
	NBK110512-E10480A	4A - 5A			
PS	NBK190619-E10480A	6A - 7A			
PS E	Axial Leads	S			
	NBK200405-E10480D	1A - 3.5A			
	NBK110512-E10480B	4A - 5A			
	NBK190619-E10480B	6A -7A			
(€	N/A	0.250A - 7A			

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

- In accordance with Underwriter's Laboratories Standard UL/CSA 248-14
- In accordance with DENAN Appendix 3 for the Japanese Market.
- 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.











For recommended fuse accessories for this product series, see '<u>Recommended Accessories</u>' section.



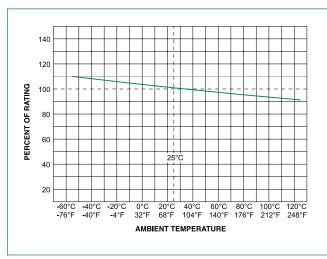
Axial Lead & Cartridge Fuses

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Electrical Characteristic Specifications by Item

Amp Ampere Rating Code (A)				Nominal Melting I²t (A² sec)	Agency Approvals			
					c Nus	PS E	Œ	
.250	0.25	350		2.410	0.216	x	-	х
.375	0.375	350		1.170	0.87	x	-	х
.500	0.5	350		0.688	1.60	х	-	х
.600	0.6	350		0.477	1.750	x	-	х
.750	0.75	350		0.340	2.950	x	-	х
.800	0.8	350		0.304	3.450	x	-	х
001.	1	350		0.210	5.640	х	x	х
1.25	1.25	350		0.1460	16.2	x	x	х
01.5	1.5	350	1004 @ 050\/	0.1077	20.8	x	x	х
002	2	350	100A @ 350Vac	0.0689	30.0	x	x	х
2.25	2.25	350		0.0567	39.0	x	x	х
02.5	2.5	350		0.0502	70.0	x	x	х
003	3	350		0.0383	77.0	x	x	х
03.5	3.5	350		0.0312	110	x	x	х
004	4	350		0.0258	148	x	х	х
005	5	350		0.0186	267	x	х	х
006	6	350		0.0141	380	x	х	х
007	7	350		0.0116	464	x	x	x

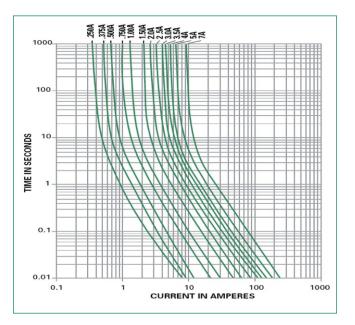
Temperature Re-rating Curve



Note:

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

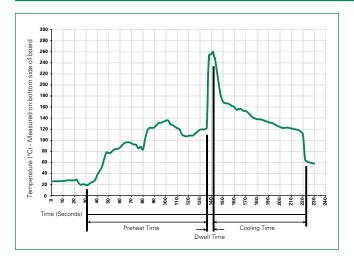
Average Time Current Curves





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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

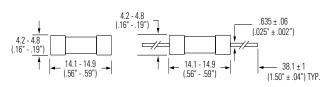
Materials	Body : Glass Cap : Nickel-plated brass Leads: Tin-plated Copper		
Terminal Strength	MIL-STD-202, Method 211, Test Condition A		
Solderability	MIL-STD-202 method 208		
Product Marking	Cap1 : Brand logo, current and voltage ratings Cap2 : Series and agency approval marks		

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	MILSTD-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

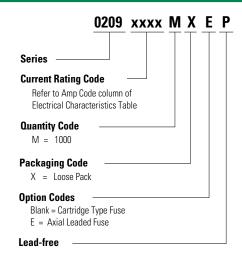
Dimensions

209 000P Series

209 000EP Series



Part Numbering System





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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
l la blan	<u>150</u>	In-Line Fuseholder	350	10
Holder <u>286</u>	Panel Mount Flip-Top Shock-Safe Fuseholder	250	10	
Block	<u>254</u>	OMNI-BLOK® Fuse Block	400	10
Clip	<u>111</u>	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.