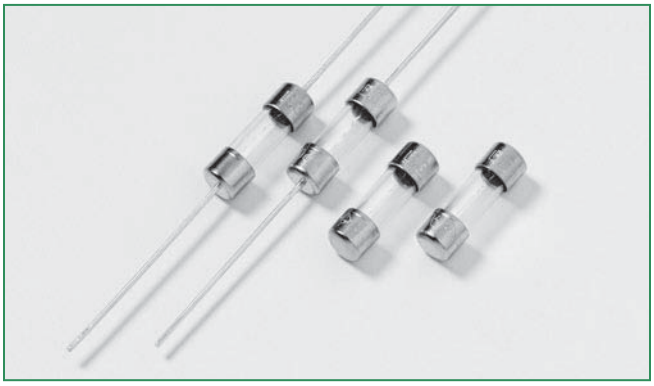
209 Series Lead-Free 2AG, Slo-Blo® (Time-Lag) Fuse



Description

Littelfuse 209 Series (2AG) 350V, Time-Lag (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 248-14
- Available in cartridge and axial lead form and with various forming dimensions
- RoHS compliant and Lead-free

Applications

- Electronic Lighting Ballasts

Agency Approvals

Agency	Agency File Number	Ampere Range
c UL us	E10480	250mA-7A
PS E	NBK210405-E10480G/H NBK210405-E10480C/D NBK210405-E10480E/F	1A-7A
CE		250mA-7A

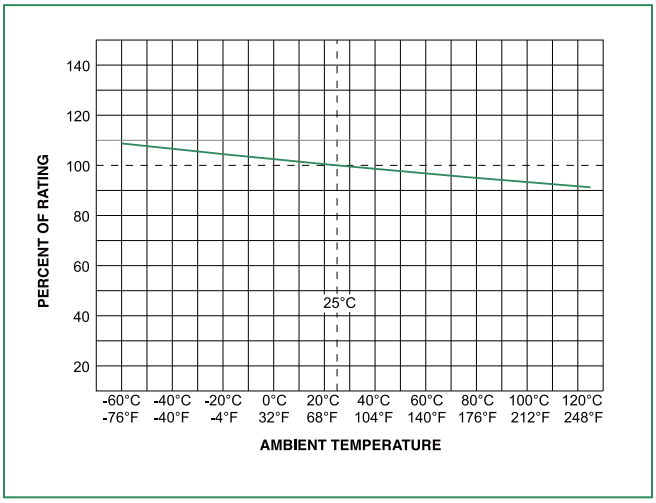
Electrical Characteristics for Series

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

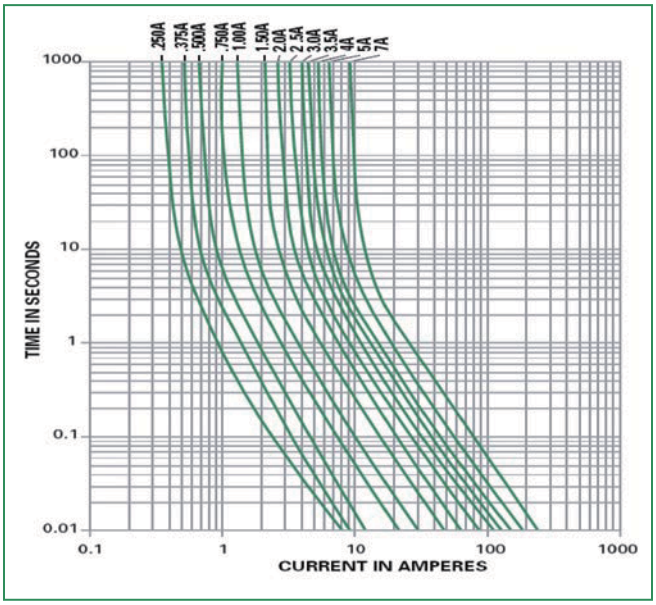
Electrical Characteristic Specifications by Item

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	0.580	x		x
.500	0.5	350		0.688	1.160	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	9.80	x	x	x
01.5	1.5	350		0.1077	15.0	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	50.0	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

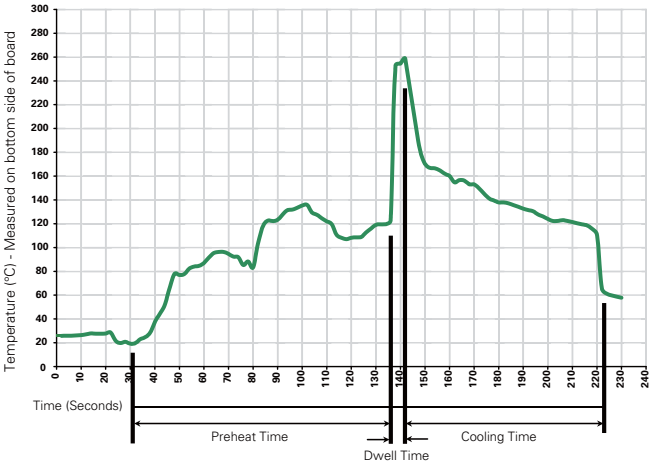
Temperature Rerating Curve



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.

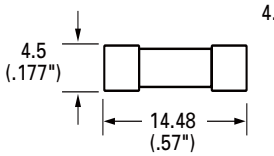
Product Characteristics

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	Cap1 : Brand logo, current and voltage ratings Cap2 : Series and agency approval marks

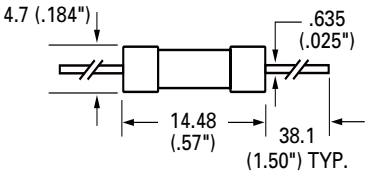
Operating Temperature:	–55°C to 125°C.
Thermal Shock:	MIL-STD-202G, Method 107G, Test Condition B (5 Cycles -65°C to +125°C).
Vibration	MIL-STD-202G, Method 201A
Humidity	MIL-STD-202G, Method 103B, Test Condition A: High RH (95%) and elevated temp (40°C) for 240 hours
Salt Spray	MIL-STD-202G, Method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

Dimensions

209 000P **Series**



209 000EP **Series**



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

Packaging

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=52mm (2.062")