

312/318 Series Lead-Free 3AG, Fast-Acting Fuse



Agency Approvals

Agency	Agency File Number	Ampere Range
	E10480 AU1410	312 Series: 62mA - 10A 318 Series: 62mA - 10A 312 Series: 12A - 30A
	LR 29862	312 Series: 62mA - 30A 318 Series: 62mA - 10A
	NBK040205- E10480B/F	312/318 Series: 1A - 10A
	E10480	318 Series: 12A - 30A
	SU05001- 5005/5006/6005/6008	312/318 Series: 1A/ 1.25A / 1.6A/ 2A - 10A
		312 Series: 62mA - 10A 318 Series: 62mA - 10A

Description

The 3AG Fast-Acting Fuse solves a broad range of application requirements while offering reliable performance and cost-effective circuit protection.

Features

- In accordance with UL Standard 248-14
- Available in cartridge and axial lead format and with various forming dimensions
- RoHS compliant and Lead-free

Applications

Used as supplementary protection in appliance or utilization equipment to provide individual protection for components or internal circuits.

Electrical Characteristics for Series

% of Ampere Rating	Ampere Rating	Opening Time
100%	62mA – 35A	4 hours, Minimum
135%	62mA – 35A	1 hour, Maximum
200%	10mA – 10A	5 sec., Maximum
	12A – 30A	10 sec., Maximum
	35A	20 sec., Maximum

Additional Information



**Datasheet
312 Series**



**Resources
312 Series**



**Samples
312 Series**



**Datasheet
318 Series**



**Resources
318 Series**



**Samples
318 Series**

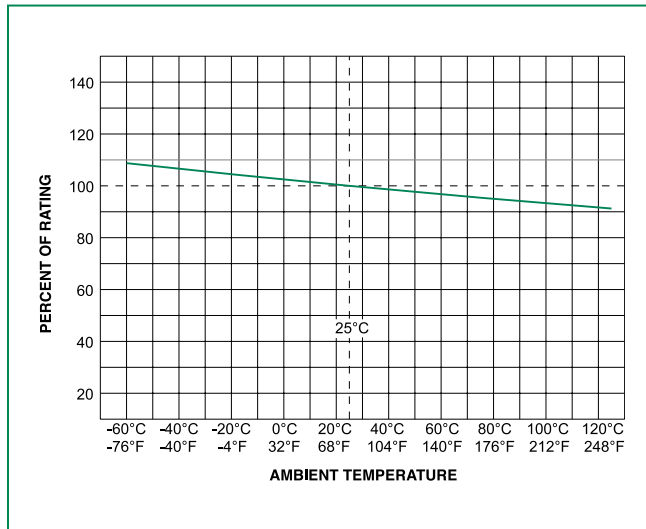
Electrical Characteristic Specifications by Item

Amp Code	Ampere Rating (A)	Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I ² t (A ² sec)	Agency Approvals					
						UL	cULus	K	PSE	SF	CE
.062	0.062	250	35A@250Vac 10KA@125Vac	24.7000	0.000249	x				x	x
.100	0.1	250		11.2800	0.00102	x				x	x
.125	0.125	250		7.1450	0.00289	x				x	x
.150	0.15	250		5.1300	0.00550	x				x	x
.175	0.175	250		3.8750	0.00960	x				x	x
.187	0.187	250		3.4200	0.0128	x				x	x
.200	0.2	250		3.0200	0.0165	x				x	x
.250	0.25	250		2.0100	0.0355	x				x	x
.300	0.3	250		1.4050	0.0689	x				x	x
.375	0.375	250		0.8250	0.185	x				x	x
.500	0.5	250		0.4980	0.483	x				x	x
.600	.6	250		0.3620	0.880	x				x	x
.750	0.75	250		0.2445	1.84	x				x	x
001.	1	250		0.1900	0.760	x		x	x	x	x
1.25	1.25	250	100A@250Vac 10KA@125Vac	0.1385	1.45	x		x	x	x	x
01.5	1.5	250		0.1036	2.35	x			x	x	x
01.6	1.6	250		0.0934	2.80	x		x	x	x	x
1.75	1.75	250		0.0856	3.60	x			x	x	x
01.8	1.8	250		0.0825	3.85	x			x	x	x
002.	2	250		0.0704	5.20	x		x	x	x	x
2.25	2.25	250		0.0594	7.20	x		x	x	x	x
02.5	2.5	250		0.0513	9.54	x		x	x	x	x
003.	3	250		0.0427	14.0	x		x	x	x	x
004.	4	250	200A@250Vac 10KA@125Vac	0.0293	28.5	x		x	x	x	x
005.	5	250		0.0224	50.0	x		x	x	x	x
006.	6	250		0.0178	118.0	x		x	x	x	x
007.	7	250		0.0146	118.0	x		x	x	x	x
008.	8	250		0.0122	166.0	x		x	x	x	x
010.	10	250		0.0093	298.0	x		x	x	x	x
012.*	12	32	300A@32 Vac	0.0072	234.6	x	x**			x	
015.*	15	32		0.0052	490.5	x	x**			x	
020.*	20	32		0.0035	1029	x	x**			x	
025.*	25	32		0.0024	2041	x	x**			x	
030.*	30	32		0.0019	3717	x	x**			x	
035.	35	32		0.0013	7531						

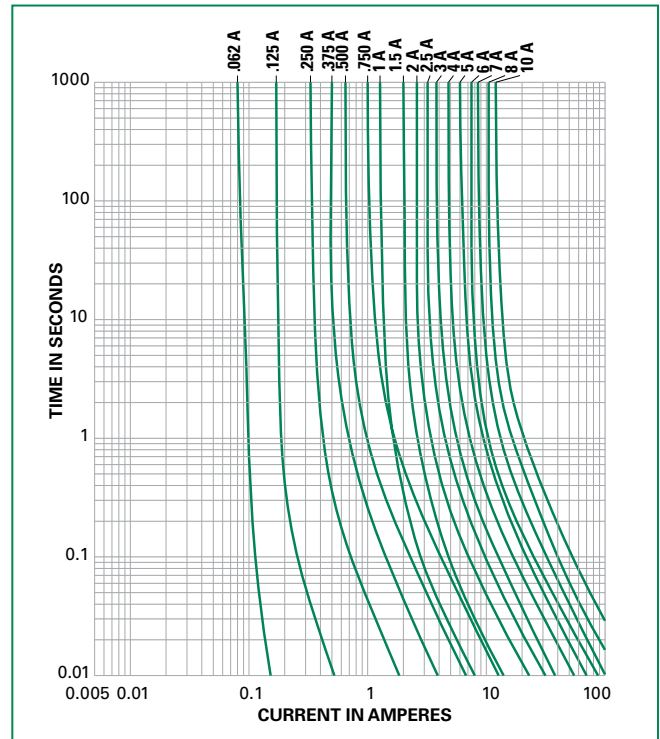
NOTES:

** For 318 Series 12A to 30A, the agency approval is only cULus.

Temperature Derating Curve

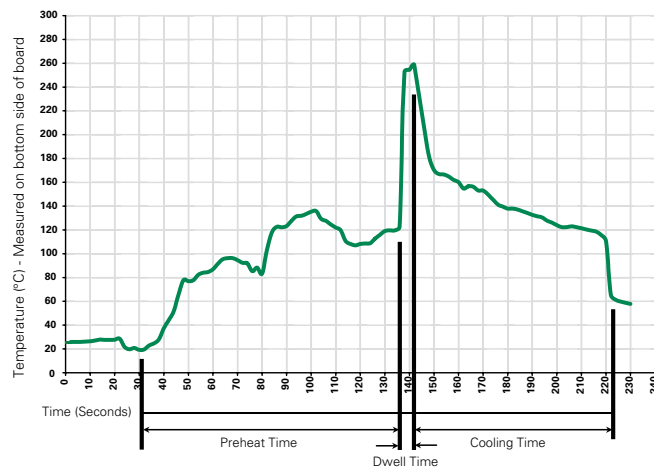


Average Time Current Curves



Please contact Littelfuse for more details on those T-C Curves of other ampere ratings which are not published.

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.

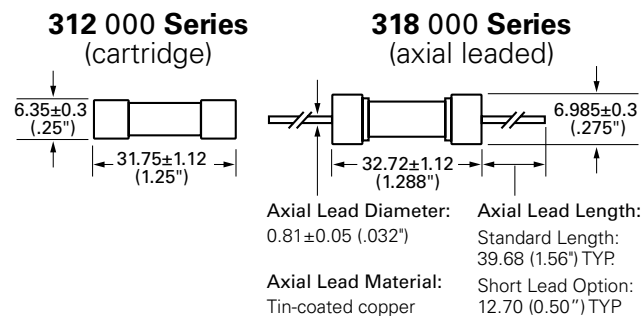
Product Characteristics

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

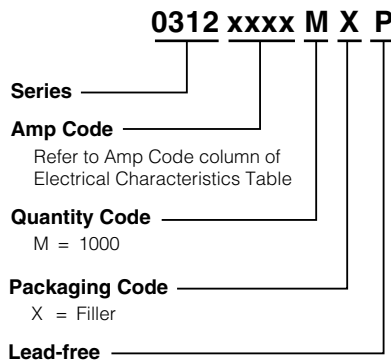
Operating Temperature	-55°C to +125°C
Thermal Shock	MIL-STD-202G, Method 107G, Test Condition B: (5 cycles -65°C to +125°C)
Vibration	MIL-STD-202G, Method 201 A
Humidity	MIL-STD-202G, Method 103B, Test Condition A: High RH (95%), and Elevated temperature (40°C) for 240 hours
Salt Spray	MIL-STD-202G,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

Dimensions

Measurements displayed in millimeters (inches)



Part Numbering System



Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
312 Series				
Bulk	N/A	1000	MX	N/A
Bulk	N/A	100	HX	N/A
318 Series				
Bulk	N/A	1000	MX	N/A
Bulk	N/A	100	HX	N/A
Bulk	N/A	1000	MXB	N/A

Mouser Electronics

Authorized Distributor

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

Littelfuse:

0312012.MXP	0312025.HXP	0312025.MXP	0312.250MXP	031201.5MXP	0312.375MXP	0318.375MXP
0312.175HXP	0312.200MXP	0318.375HXP	0318003.HXP	0312002.MXP	0318.600HXP	0318001.MXP
0312.500HXP	0318010.MXP	031202.5HXP	031201.8MXP	0312007.MXP	031201.5HXP	0318.200HXP
0312.600HXP	0318.175MXP	0312006.MXP	0318.187MXP	0318008.MXP	031801.5HXP	031802.5HXP
0318004.MXP	0312004.MXP	0312010.MXP	03121.75MXP	0312.300MXP	03181.25MXP	0318.300MXP
0318.062HXP	031201.6MXP	0312.150MXP	0312.187MXP	031201.8HXP	0318001.HXP	03182.25MXP
031202.5MXP	0312008.HXP	03181.75MXP	0318.125MXP	0318.500MXP	0312.750HXP	031801.8MXP
031801.6MXP	031201.6HXP	0318.175HXP	0312.300HXP	0318006.MXP	0312.062MXP	0312001.MXP
0312005.MXP	0318005.HXP	0312001.HXP	0318.200MXP	03181.25HXP	0312030.HXP	0312035.HXP
0312035.MXP	0312015.MXP	0312020.MXP	0312015.HXP	0318.500HXP	0318.750HXP	0318002.MXP
0318006.HXP	0312.175MXP	0312004.HXP	0318010.HXP	0318.187HXP	0318005.MXP	0318.125HXP
0318.300HXP	0312.600MXP	0312.062HXP	03122.25HXP	031802.5MXP	0318007.MXP	0318.100HXP
0318.250HXP	0312.100MXP	0312005.HXP	0318.150MXP	0312006.HXP	0312.187HXP	0318.600MXP
0312010.HXP	03181.75HXP	0318002.HXP	0318007.HXP	0312003.MXP	0318004.HXP	031801.6HXP
0312007.HXP	0318.250MXP					