

RoHS **313/315 Series** Lead-Free 3AG, Slo-Blo® Fuse



Description

The 3AG Slo-Blo® fuse solves a broad range of application requirements while offering reliable performance and cost-effective circuit protection.

The fuse catalog number with the suffix “ID” instantly identifies itself upon opening by showing a discoloration of its glass body. Guesswork and time consuming circuit testing are eliminated. This unique design offers the same quality performance characteristics as the standard 3AG Slo-Blo® Fuse design.

Agency Approvals

Agency	Agency File Number	Ampere Range
	E10480	10mA - 10A**
	LR 29862	10mA - 10A**/15A**
	E10480	10A - 30A
	NBK 040205- E10480B/D/F/G/H	1A - 10A**/ 15A**
	SU05001- 5007/5008/5009/6004	2.25A - 8A
		10mA - 10A**/15A**

Features

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

Applications

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

Electrical Characteristics by Series

% of Ampere Rating	Ampere Rating	Opening Time
100%	10mA – 30A	4 hours, Minimum
135%	10mA – 30A	1 hour, Maximum
200%	10mA – 15A	5 sec., Min., 30 sec., Max
	20A – 30A	5 sec., Min., 60 sec Max

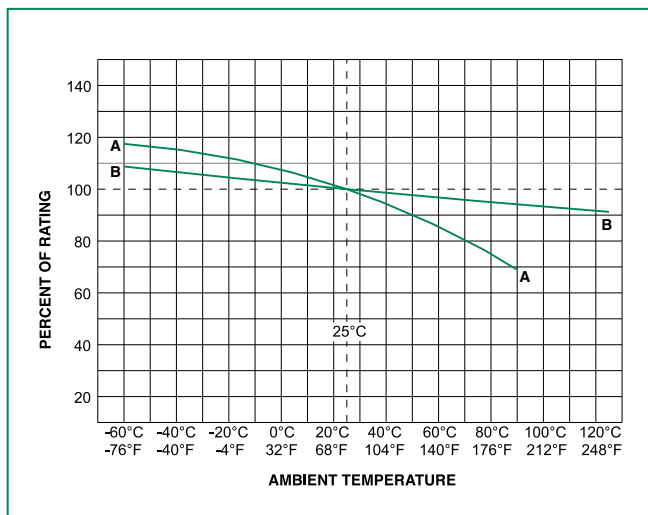
Electrical Characteristic Specifications by Item

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	SP	KC	RU	PS E	CE
.010	0.01	250	35A@250Vac 10KA@125Vac	4300.0000	0.000121	x	x				x
.031	0.031	250		430.0000	0.00303	x	x				x
.040	0.04	250		300.0000	0.00630	x	x				x
.062	0.062	250		120.0000	0.0210	x	x				x
.100	0.1	250		43.0000	0.0850	x	x				x
.125	0.125	250		30.0000	0.152	x	x				x
.150	0.15	250		20.0000	0.270	x	x				x
.175	0.175	250		8.6700	0.177	x	x				x
.187	0.187	250		8.0100	0.230	x	x				x
.200	0.2	250		6.5900	0.270	x	x				x
.250	0.25	250		4.2700	0.385	x	x				x
.300	0.3	250		3.1350	0.730	x	x				x
.375	0.375	250		2.0950	1.23	x	x				x
.400	0.4	250		1.8750	1.35	x	x				x
.500*	0.5	250		1.2600	2.55	x	x				x
.600	0.6	250		0.9120	4.00	x	x				x
.700	0.7	250		0.7000	5.90	x	x				x
.750	0.75	250		0.6215	7.16	x	x				x
.800	0.8	250		0.5540	8.00	x	x				x
001.*	1	250		0.3750	14.0	x	x			x	x
01.2	1.2	250	100A@250Vac 10KA@125Vac	0.2780	21.5	x	x			x	x
1.25	1.25	250		0.2600	24.0	x	x			x	x
01.5*	1.5	250		0.1910	38.0	x	x			x	x
01.6	1.6	250		0.1710	49.6	x	x			x	x
01.8	1.8	250		0.1410	58.0	x	x			x	x
002.*	2	250		0.1169	77.0	x	x			x	x
2.25	2.25	250		0.0968	121	x	x	x		x	x
02.5	2.5	250		0.0811	130	x	x	x		x	x
02.8	2.8	250		0.0675	170	x	x	x		x	x
003.*	3	250		0.0593	200	x	x	x		x	x
03.2	3.2	250		0.0529	209	x	x	x		x	x
004.*	4	250	200A@250Vac 10KA@125Vac	0.0311	76.1	x	x	x		x	x
005.*	5	250		0.0214	140	x	x	x		x	x
6.25*	6.25	250		0.0154	242	x	x	x		x	x
06.3	6.3	250		0.0154	242	x	x	x		x	x
007.*	7	250		0.0128	347	x	x	x		x	x
008.*	8	250	300A@32Vac	0.0111	445	x	x	x		x	x
010.**	10	250		0.0083	760	x	x			x	x
010.*	10	32		0.0083	760				x		
012.	12	32		0.0065	1200				x		
015.**	15	125		0.0050	1870		x		x	x	x
015.	15	32		0.0050	1870				x		
020.	20	32		0.0022	9560				x		
025.	25	32		0.0017	16500				x		
030.	30	32		0.0012	26900				x		

* For 313series, these ratings available with an indicating option. Add the "ID" designation to the series number. i.e. 313.500ID.

** These 2 ratings are designed for special voltage requirement. For 10A, it is available as 250Vac rated and the part number is 0313010. MX250P; for 15A, it is available as 125Vac rated and the part number is 0315015.MX125P.

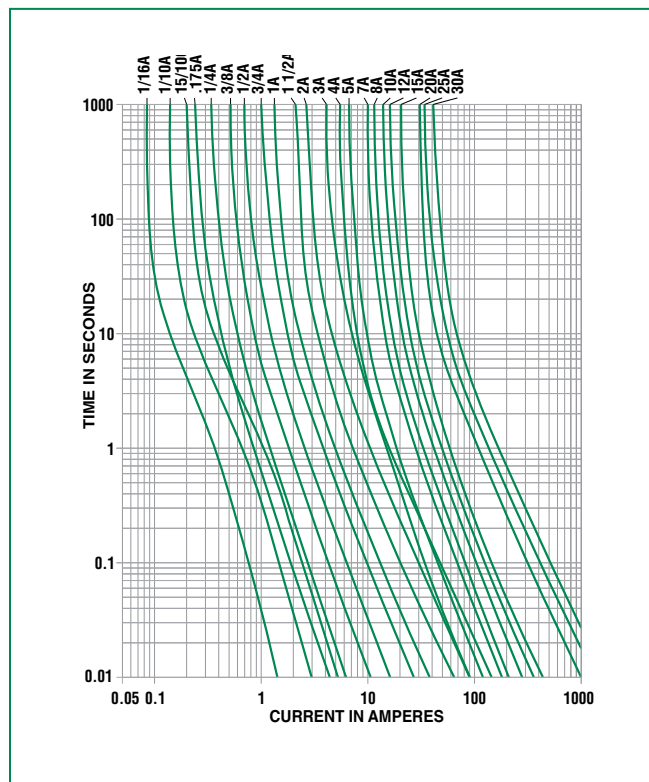
Temperature Derating Curve



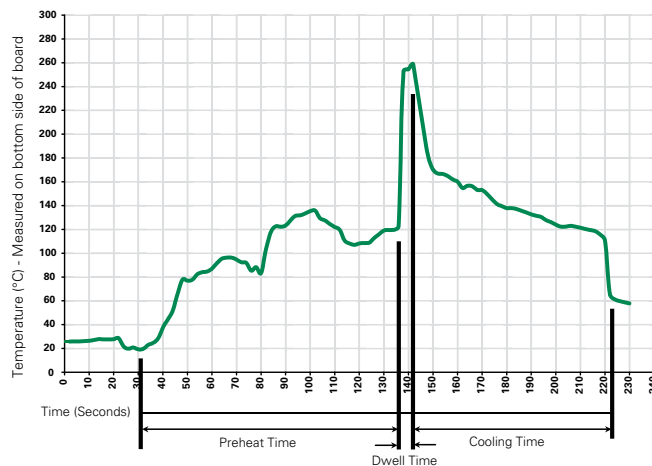
A - For 313/315 Series, from 10mA to 150mA

B - For all other ampere ratings of 313/315 series

Average Time Current Curves



Soldering Parameters - Wave Soldering



Recommended Process Parameters:

Wave Parameter	Lead-Free Recommendation
Preheat: (Depends on Flux Activation Temperature)	
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.

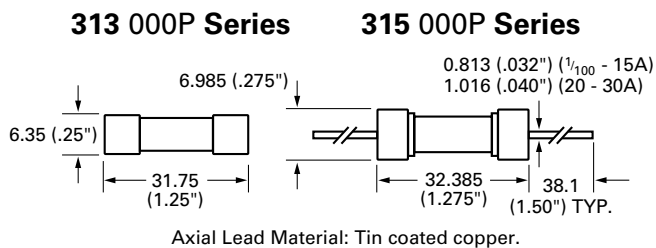
Note: These devices are not recommended for IR or Convection Reflow process.

Product Characteristics

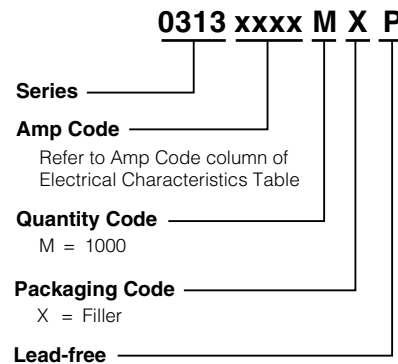
Materials	Body: Glass Cap: Nickel-plated brass Leads: Tin-plated Copper
Terminal Strength	MIL-STD-202G, Method 211A, Test Condition A
Solderability	Reference IEC 60127 Second Edition 2003-01 Annex A
Product Marking	Cap1: Brand logo, current and voltage ratings Cap2: Series and agency approval marks

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



Part Numbering System



Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
313 Series				
Bulk	N/A	1000	MX	N/A
Bulk	N/A	100	HX	N/A
315 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

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Littelfuse:

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[313.600](#) [313.700](#) [313.750](#) [313001](#) [3131.25](#) [31301.5](#) [313002](#) [3132.25](#) [31302.5](#) [313003](#) [313004](#) [313005](#) [3136.25](#)
[31306.3](#) [313007](#) [313015](#) [313020](#) [315001](#) [313.800](#) [0313001.H](#) [0313.250H](#) [0315.040M](#) [0313015.M](#) [0315.010M](#)
[313.300](#) [0313.375M](#) [0315015.M](#) [0313005.H](#) [0313001.M](#) [031302.5H](#) [0315.040H](#) [031306.3M](#) [0315020.H](#)
[0313025.M](#) [0313.700H](#) [031301.2M](#) [03156.25H](#) [0313.125M](#) [0313008.HXID](#) [0315003.M](#) [031301.5M](#) [0315012.H](#)
[0313005.HXID](#) [0315.125M](#) [031502.8M](#) [0313.300M](#) [0315.187H](#) [0315.600H](#) [0315001.M](#) [031301.5HXID](#) [031501.8M](#)
[0313.375H](#) [031501.2H](#) [0315010.M](#) [0315030.H](#) [0313010.H](#) [0313.600M](#) [0315004.M](#) [0313.100H](#) [0313.187M](#)
[0315030.M](#) [0315012.M](#) [031301.8H](#) [031302.5M](#) [0313.100M](#) [0315007.H](#) [0313002.H](#) [0313002.HXID](#) [0313005.M](#)
[0315.100H](#) [0313.800M](#) [0313007.M](#) [031303.2M](#) [0315.150M](#) [0315.600M](#) [0315.031M](#) [0315030.MXB](#) [03152.25M](#)
[031301.6M](#) [0313.250M](#) [0315007.MXB](#) [031502.5H](#) [03136.25HXID](#) [0315.700M](#) [0315.031H](#) [0315.125H](#) [0315007.M](#)
[0313.700M](#)