Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!


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

## Agency Approvals

| Agency | Agency File Number | Ampere Range |
|---|---|---|
| UL | E10480 | 0.010A - 10A** |
| CSA | 29862 | 0.010A - 10A**/15A** |
| VDE | E10480 | 10A - 30A |
| PSE | NBK040205-E10480B/F<br>NBK040205-E10480D/H | 1-5A<br>6.25- 10A**/15A** |
| KC | SU05001-6004<br>SU05001-5007<br>SU05001-5008<br>SU05001-5009 | 2.25-2.5A<br>2.8A - 3.2A<br>4A - 6.3A<br>7A-8A |
| CE | N/A | 0.010A - 10A**/15A** |

** See note under Electrical Characteristics by item

## Additional Information

**Datasheet 313 Series**

**Resources 313 Series**

**Samples 313 Series**

**Datasheet 315 Series**

**Resources 315 Series**

**Samples 315 Series**

## 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.

## 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 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.,<br>30 sec., Max |
| | 20A – 30A | 5 sec., Min.,<br>60 sec Max |



Revised: 07/15/15

# Axial Lead & Cartridge Fuses

## 3AG > Slo-Blo® Fuse > 313/315 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 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | UL | CSA | KC | VDE | PSE | 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 | 92.0 | 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 | 199 | x | x | x | | x | x |
| 02.8 | 2.8 | 250 | | 0.0675 | 269 | 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 | 276 | x | x | x | | x | x |
| 6.25* | 6.25 | 250 | | 0.0154 | 388 | x | x | x | | x | x |
| 06.3 | 6.3 | 250 | | 0.0154 | 388 | x | x | x | | x | x |
| 007.* | 7 | 250 | | 0.0128 | 547 | x | x | x | | x | x |
| 008.* | 8 | 250 | | 0.0111 | 701 | x | x | x | | x | x |
| 010.** | 10 | 250 | | 0.0083 | 1285 | x | x | | | x | x |
| 010.* | 10 | 32 | 300A@32Vac | 0.0083 | 1285 | | | | x | | |
| 012. | 12 | 32 | | 0.0065 | 1200 | | | | x | | |
| 015.** | 15 | 125 | | 0.0050 | 2650 | | x | | x | x | x |
| 015. | 15 | 32 | | 0.0050 | 2650 | | | | 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.


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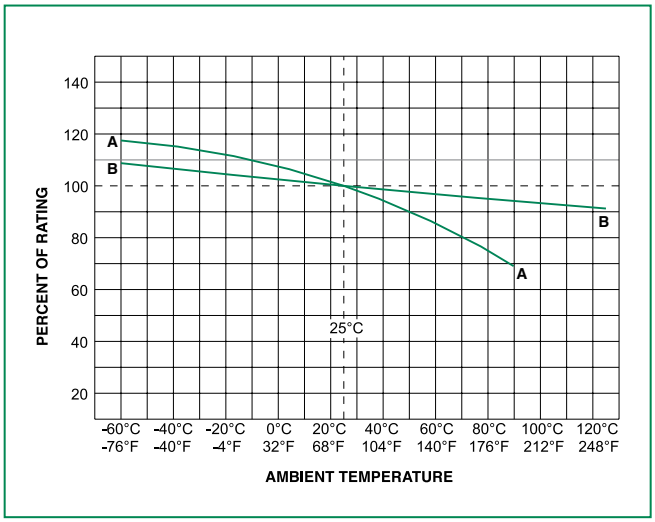
## Temperature Re-rating Curve



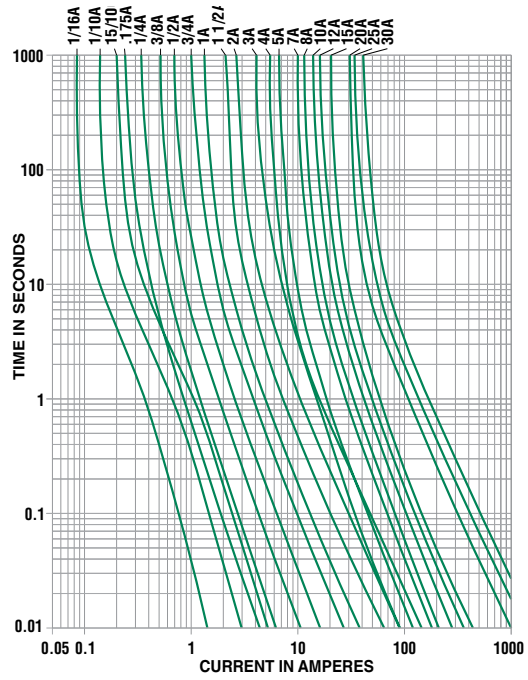

**A - For 313/315 Series, from 10mA to 150mA**

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

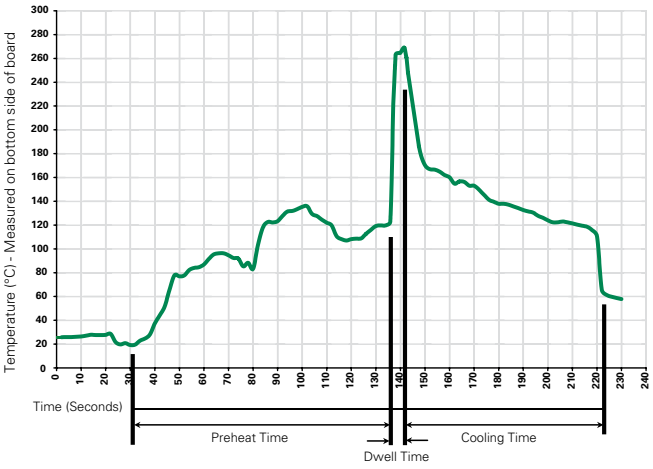
Note:

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

## 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.**


Revised: 07/15/15

# Axial Lead & Cartridge Fuses

3AG > Slo-Blo® Fuse > 313/315 Series

## Product Characteristics

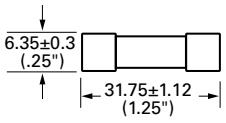
| | |
|---|---|
| **Materials** | Body: Glass<br>Cap: Nickel–plated brass<br>Leads: Tin–plated Copper |
| **Terminal Strength** | MIL-STD-202, Method 211, Test Condition A |
| **Solderability** | MIL-STD-202 method 208 |
| **Product Marking** | Cap1: Brand logo, current and voltage ratings<br>Cap2: Series 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 temperature (40°C) for 240 hours |
| **Salt Spray** | MIL- STD-202, Method 101, Test Condition B |

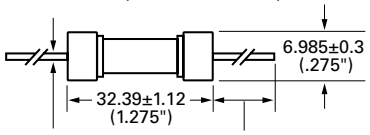
## Dimensions

Measurements displayed in millimeters (inches)

**313** 000P **Series**
(cartridge)




**315** 000P **Series**
(axial leaded)

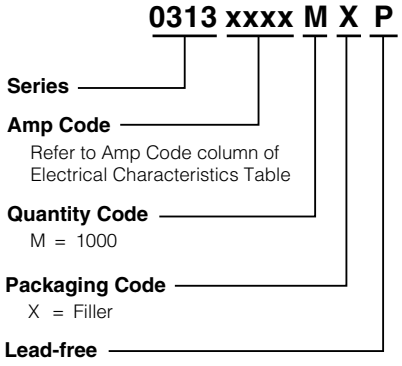



**Axial Lead Diameter:**
0.81±0.05 (.032") for (0.01A - 15A)
1.02±0.06 (.040") for (20A - 30A)

**Axial Lead Length:**
38.1±3.15 (1.50") TYP.

**Axial Lead Material:**
Tin-coated copper

## 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 |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