

**500mA-15A 3AP EOL – Last Buy Date is Aug 31, 2021**  
**No replacements for the axial leaded fuses**

## Type 3AG / 3AP Fast Blow Fuse Series

HF  3AG/3AP Series, 6x32mm Glass Tube Fast Blow Fuse

RoHS 2 Compliant

### Description

6x32mm Fast Blow, glass tube body cartridge fuse designed, approved and complied with UL and CSA standard 248-14.



### Features

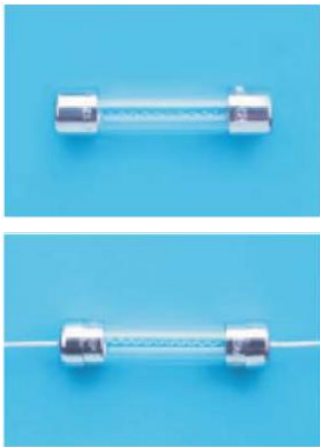
- Meet UL and CSA standard 248-14
- Wide operating temperature range
- Bulk packing available
- RoHS 2 compliant
- Halogen Free
- Lead Free

### Applications



Provide individual protection for components or internal circuits.

- Power supplies
- Battery charger
- Monitor
- Adapter

LEAD FREE =   
 HALOGEN FREE = 






### Physical Specifications

|           |  |
|-----------|--|
| Materials | Body : Ceramic   |
|           | Cap : Nickel Plated Brass Caps   |
|           | Leads : Matte Tin Plated Copper  |
| Marking   | On Fuse :<br>"bel", "3AG", "Current Rating", "Voltage Rating",<br>"Appropriate Safety Logos", "✓" ( RoHS 2compliant )  |
|           | On Label :   |
|           | "bel", "3AG" or "3AP", "Current Rating", "Voltage Rating", "Interrupting Rating",<br>"Appropriate Safety Logos" and "  ", "  " (China RoHS compliant). |

### Electrical Characteristics (UL/CSA STD.248-14)

| Testing Current | Blow Time |         |
|-----------------|-----------|---------|
|                 | Minimum   | Maximum |
| 100%            | 4 hrs.    | N/A     |
| 135%            | N/A       | 1 hr.   |
| 200%            | N/A       | 5 sec   |

### Safety Agency Approvals

| Safety Agency   | Safety Agency Certificate | Voltage Rating (V)    | Ampere Range / Volt @ I.R. ability*                 |
|---|---------------------------|-----------------------|---|
|  | E20624                    | 500mA-10A/<br>250V AC | 500mA-10A/250V AC@200A<br>500mA-15A/125V AC@10,000A |
|  | LR39772                   |                       |   |
|  | JET1037-31003-1010        | 12A-15A/<br>125V AC   | 1A-5A/125V AC@500A<br>>5A-15A/125V AC@300A          |
|   | JET1037-31003-1011        |                       |   |
|   | JET1037-31003-1007        |                       |   |

\*I.R.= Interrupting Rating = Short Circuit Rating(Amps)

# Type 3AG / 3AP

## Environmental Specifications

|                           |  |
|---------------------------|--|
| Shock Resistance          | MIL-STD-202G, Method 213B, Test Condition 1 (100 G's peak for 6 milliseconds; Sawtooth waveform) |
| Vibration Resistance      | MIL-STD-202G, Method 201A (10-55 Hz, 0.06 inch, total excursion).                                |
| Salt Spray Resistance     | MIL-STD-202G, Method 101E, Test Condition B (48 hrs).  |
| Insulation Resistance     | MIL-STD-202G, Method 302, Test Condition A (After Opening) 10,000 ohms minimum.                  |
| Solderability             | MIL-STD-202G, Method 208H  |
| Resistance to solder Heat | MIL-STD-202G, Method 210F, Test Condition B (260+/-5°C, 10+/-1 sec)                              |
| Thermal Shock             | MIL-STD-202G, Method 107G, Test Condition B (-65°C to +125°C).                                   |
| Operating Temperature     | -55°C to +125°C  |
| Terminal Strength         | IEC-68-2-21  |

## Electrical Specifications

| Catalog Number  | Ampere Rating | Typical Cold Resistance (ohms) | Volt-drop @ 100%In (Volt) max. | Voltage and Interrupting Ratings  | Melting I <sup>2</sup> T <10 mSec (A <sup>2</sup> Sec) | Melting I <sup>2</sup> T @ 10 In (A <sup>2</sup> Sec) | Maximum Power Dissipation (W) | Agency Approvals |    |    |
|-----------------|---------------|--------------------------------|--------------------------------|---|--|---|-------------------------------|------------------|----|----|
|                 |               |                                |                                |   |  |   |                               | UL               | SP | PS |
| 3AG(3AP) 500-R  | 500mA         | 1.19                           | 3.17                           | See Table of Safety Approvals on Page 1 for Voltage and associated Interrupting Ratings | 0.14   | 0.11  | 1.88                          | Y                | Y  |    |
| 3AG(3AP) 750-R  | 750mA         | 0.66                           | 2.54                           |   | 0.19   | 0.17  | 2.15                          | Y                | Y  |    |
| 3AG(3AP) 1-R    | 1A            | 0.155                          | 0.28                           |   | 1.4  | 1.4   | 0.37                          | Y                | Y  | Y  |
| 3AG(3AP) 1.25-R | 1.25A         | 0.114                          | 0.27                           |   | 2.4  | 2.5   | 0.44                          | Y                | Y  | Y  |
| 3AG(3AP) 1.6-R  | 1.6A          | 0.085                          | 0.27                           |   | 4.2  | 4.4   | 0.51                          | Y                | Y  | Y  |
| 3AG(3AP) 2-R    | 2A            | 0.057                          | 0.22                           |   | 7.2  | 7.6   | 0.59                          | Y                | Y  | Y  |
| 3AG(3AP) 2.5-R  | 2.5A          | 0.043                          | 0.21                           |   | 12   | 13  | 0.70                          | Y                | Y  | Y  |
| 3AG(3AP) 3-R    | 3A            | 0.033                          | 0.17                           |   | 21   | 23  | 0.83                          | Y                | Y  | Y  |
| 3AG(3AP) 3.5-R  | 3.5A          | 0.027                          | 0.18                           |   | 28   | 31  | 0.91                          | Y                | Y  | Y  |
| 3AG(3AP) 4-R    | 4A            | 0.024                          | 0.17                           |   | 36   | 40  | 1.00                          | Y                | Y  | Y  |
| 3AG(3AP) 5-R    | 5A            | 0.018                          | 0.16                           |   | 63   | 70  | 1.20                          | Y                | Y  | Y  |
| 3AG(3AP) 6-R    | 6A            | 0.014                          | 0.15                           |   | 107  | 123   | 1.40                          | Y                | Y  | Y  |
| 3AG(3AP) 7-R    | 7A            | 0.012                          | 0.16                           |   | 141  | 162   | 1.60                          | Y                | Y  | Y  |
| 3AG(3AP) 8-R    | 8A            | 0.010                          | 0.15                           |   | 184  | 214   | 1.70                          | Y                | Y  | Y  |
| 3AG(3AP) 10-R   | 10A           | 0.008                          | 0.13                           |   | 316  | 372   | 2.00                          | Y                | Y  | Y  |
| 3AG(3AP) 12-R   | 12A           | 0.006                          | 0.13                           |   | 501  | 597   | 2.40                          | Y                | Y  | Y  |
| 3AG(3AP) 15-R   | 15A           | 0.006                          | 0.15                           |   | 845  | 1023  | 2.80                          | Y                | Y  | Y  |

Consult manufacturer for other ratings

**3AP  
EOL–**

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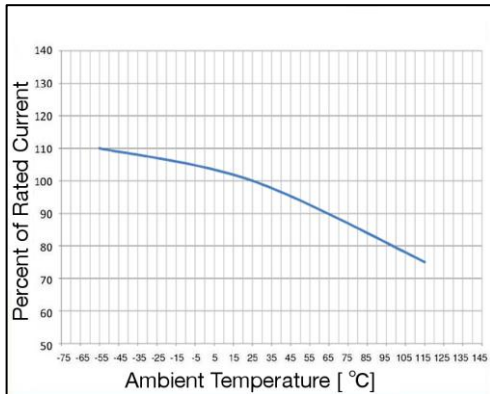
Specifications subject to change without notice

Bel Fuse Inc.  
206 Van Vorst Street  
Jersey City, NJ 07302 USA

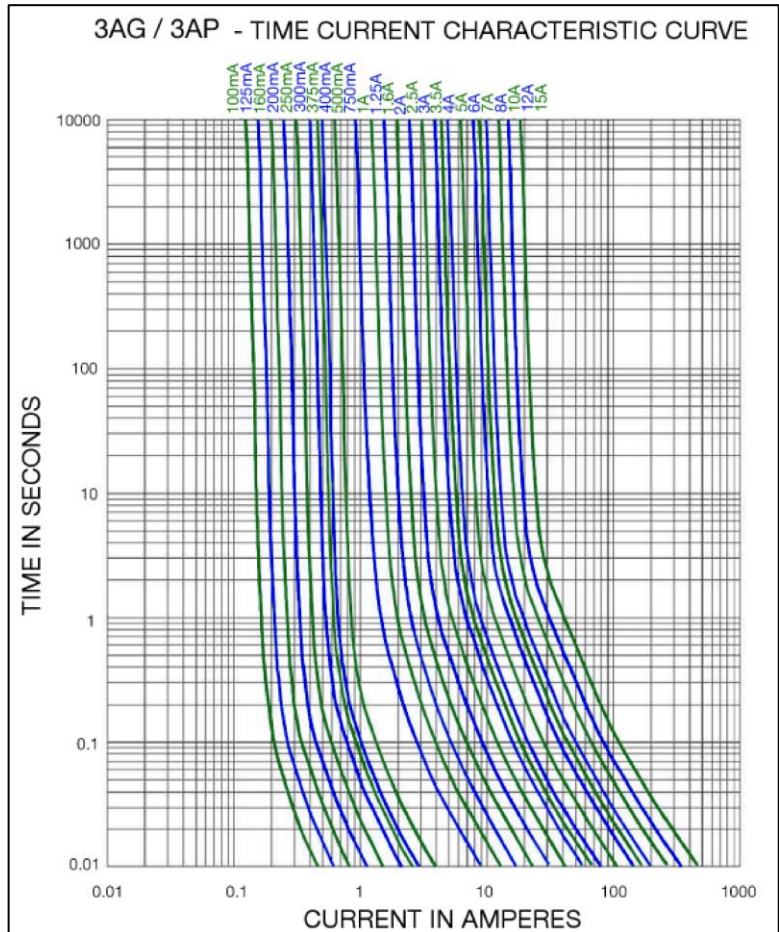
+1 201.432.0463  
Bel.US.CS@belf.com  
[belfuse.com/circuit-protection](http://belfuse.com/circuit-protection)

# Type 3AG / 3AP

## Temperature Derating Curve

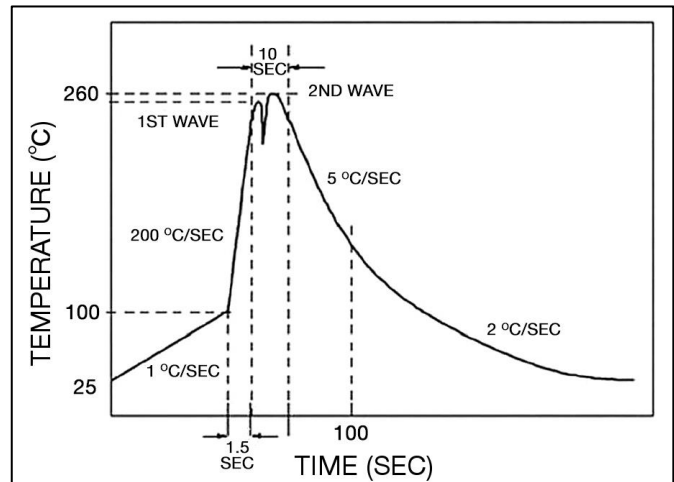


## Average Time Current Curve



## Soldering Parameters

| Lead-free Wave Soldering Profile                   |  |
|--|--|
| Wave Soldering Parameter                           |  |
| Average ramp-up rate                               | 200°C / second                               |
| Heating rate during preheat                        | typical 1 - 2°C / second<br>Max 4°C / second |
| Final preheat temperature                          | within 125°C of soldering temperature        |
| Peak temperature T <sub>p</sub>                    | 260°C  |
| Time within +0°C / -5°C of actual peak temperature | 10 seconds                                   |
| Ramp-down rate                                     | 5°C / second max.                            |



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## Fuse FGNO Explanation

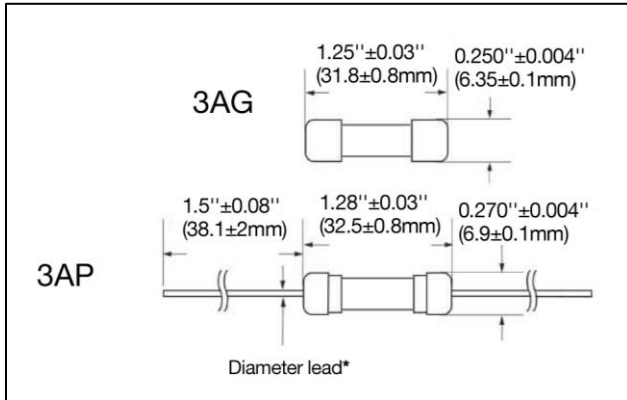
06X1 R [XXXX] -XX

0601R=3AG / 0611R=3AP; [XXXX]=Ampere Rating; XX=See Ordering Information as below

| Fraction | Decimal | Milliamps | Bel FGNO[XXXX] |
|----------|---------|-----------|----------------|
| 1/2      | .500    | 500       | 0500           |
| 3/4      | .750    | 750       | 0750           |
|          | 1.0     | 1         | 1000           |
| 1-1/4    | 1.25    | 1.25      | 1250           |
|          | 1.60    | 1.6       | 1600           |
|          | 2.0     | 2         | 2000           |
| 2-1/2    | 2.5     | 2.5       | 2500           |
|          | 3.0     | 3         | 3000           |
| 3-1/2    | 3.5     | 3.5       | 3500           |

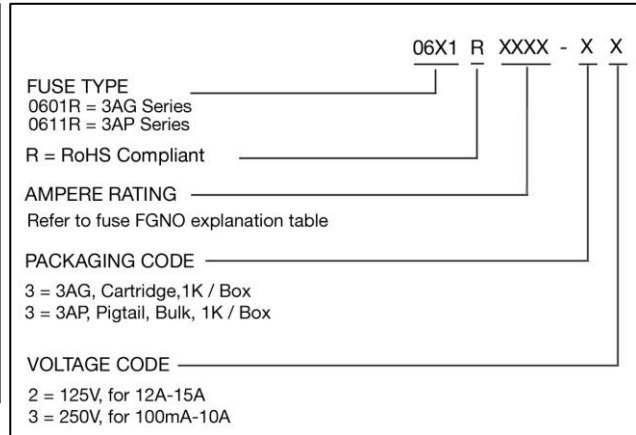
| Fraction | Decimal | Amps | Bel FGNO[XXXX] |
|----------|---------|------|----------------|
|          | 4.0     | 4    | 4000           |
|          | 5.0     | 5    | 5000           |
|          | 6.0     | 6    | 6000           |
|          | 7.0     | 7    | 7000           |
|          | 8.0     | 8    | 8000           |
|          |         | 10   | 9100           |
|          |         | 12   | 9120           |
|          |         | 15   | 9150           |

## Mechanical Dimensions



\*Ratings 7A and less have 0.032" ± 0.002" diameter lead;  
 Ratings 8A and above have 0.039" ± 0.002" diameter lead.

## Ordering Information



## Packaging

| Packaging Option    | Packaging Specification | Quantity | Packaging Code | Inside Tape Spacing |
|---------------------|-------------------------|----------|----------------|---------------------|
| Bulk                | N/A                     | 1000     | 33 / 32        | N/A                 |
| Bulk (Pigtail Type) | N/A                     | 1000     | 33 / 32        | N/A                 |



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