

## Type 2JQ / 3JQ Quick-Acting Fuse Series

HF  2JQ/3JQ Series, 5x15mm Glass Tube Quick-Acting Fuse

RoHS Compliant

### Description

5x15mm Quick-Acting, 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 and Tape & Reel packing available
- Full compliance with EU Directive 2011/65/EU and amending directive 2015/863
- Halogen Free
- Lead Free

### Applications

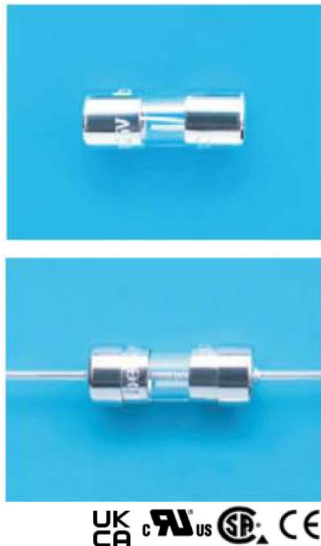
Provide individual protection for components or internal circuits.

- Power supplies
- Battery charger
- Monitor
- Adapter

LEAD FREE =



HALOGEN FREE =



### Physical Specifications

|           |                                                                                                                                                                                                                                                                                                                                  |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials | Body : Glass                                                                                                                                                                                                                                                                                                                     |
|           | Cap : Nickel Plated Brass Caps                                                                                                                                                                                                                                                                                                   |
|           | Leads : Matte Tin Plated Copper                                                                                                                                                                                                                                                                                                  |
| Marking   | On Fuse :                                                                                                                                                                                                                                                                                                                        |
|           | "bel", "JQ", "Current Rating", "Voltage Rating",<br>"Appropriate Safety Logos", "✓" ( RoHS compliant )                                                                                                                                                                                                                           |
|           | On Label :                                                                                                                                                                                                                                                                                                                       |
|           | "bel", "2JQ" or "3JQ", "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       | 1 sec   |

### Safety Agency Approvals

| Safety Agency                                                                       | Safety Agency Certificate | Ampere Rating/<br>Voltage Rating | Ampere Range / Volt<br>@ I.R. ability*  |
|-------------------------------------------------------------------------------------|---------------------------|----------------------------------|-----------------------------------------|
|  | E20624                    | 500mA–7A<br>/350V AC             | 500mA–7A / 350V AC@100A<br>140V DC@150A |
|  | LR39772                   |                                  | 500mA–7A / 350V AC@100A                 |
| *I.R. = Interrupting Rating = Short Circuit Rating(Amps)                            |                           |                                  |                                         |

# Type 2JQ / 3JQ

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## 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 m Sec (A <sup>2</sup> Sec) | Melting I <sup>2</sup> T @10 In (A <sup>2</sup> Sec) | Maximum Power Dissipation (W) | Agency Approvals                                                                    |                                                                                     |
|----------------|---------------|--------------------------------|-------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                |               |                                |                               |                                                                                         |                                                         |                                                      |                               |  |  |
| JQ 500-R       | 500mA         | 0.33                           | 0.55                          | See Table of Safety Approvals on Page 1 for Voltage and associated Interrupting Ratings | 0.10                                                    | 0.11                                                 | 0.092                         | Y                                                                                   | Y                                                                                   |
| JQ 600-R       | 600mA         | 0.26                           | 0.48                          |                                                                                         | 0.14                                                    | 0.16                                                 | 0.10                          | Y                                                                                   | Y                                                                                   |
| JQ 750-R       | 750mA         | 0.188                          | 0.45                          |                                                                                         | 0.26                                                    | 0.30                                                 | 0.12                          | Y                                                                                   | Y                                                                                   |
| JQ 800-R       | 800mA         | 0.170                          | 0.40                          |                                                                                         | 0.27                                                    | 0.40                                                 | 0.17                          | Y                                                                                   | Y                                                                                   |
| JQ 1-R         | 1A            | 0.112                          | 0.40                          |                                                                                         | 0.62                                                    | 0.65                                                 | 0.21                          | Y                                                                                   | Y                                                                                   |
| JQ 1.25-R      | 1.25A         | 0.068                          | 0.17                          |                                                                                         | 0.80                                                    | 0.82                                                 | 0.26                          | Y                                                                                   | Y                                                                                   |
| JQ 1.5-R       | 1.5A          | 0.056                          | 0.16                          |                                                                                         | 1.4                                                     | 1.4                                                  | 0.32                          | Y                                                                                   | Y                                                                                   |
| JQ 1.6-R       | 1.6A          | 0.054                          | 0.16                          |                                                                                         | 1.8                                                     | 1.9                                                  | 0.35                          | Y                                                                                   | Y                                                                                   |
| JQ 2-R         | 2A            | 0.041                          | 0.16                          |                                                                                         | 2.3                                                     | 2.5                                                  | 0.39                          | Y                                                                                   | Y                                                                                   |
| JQ 2.5-R       | 2.5A          | 0.033                          | 0.15                          |                                                                                         | 4.0                                                     | 4.3                                                  | 0.48                          | Y                                                                                   | Y                                                                                   |
| JQ 3-R         | 3A            | 0.027                          | 0.15                          |                                                                                         | 4.6                                                     | 5.6                                                  | 0.59                          | Y                                                                                   | Y                                                                                   |
| JQ 3.5-R       | 3.5A          | 0.022                          | 0.14                          |                                                                                         | 9                                                       | 10                                                   | 0.66                          | Y                                                                                   | Y                                                                                   |
| JQ 4-R         | 4A            | 0.019                          | 0.14                          |                                                                                         | 12                                                      | 13                                                   | 0.73                          | Y                                                                                   | Y                                                                                   |
| JQ 5-R         | 5A            | 0.015                          | 0.13                          |                                                                                         | 20                                                      | 23                                                   | 0.9                           | Y                                                                                   | Y                                                                                   |
| JQ 6-R         | 6A            | 0.012                          | 0.13                          |                                                                                         | 35                                                      | 40                                                   | 1.1                           | Y                                                                                   | Y                                                                                   |
| JQ 7-R         | 7A            | 0.010                          | 0.12                          |                                                                                         | 46                                                      | 53                                                   | 1.2                           | Y                                                                                   | Y                                                                                   |

Consult manufacturer for other ratings



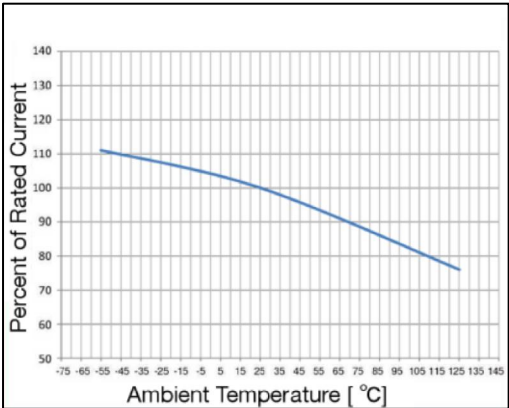
Specifications subject to change without notice

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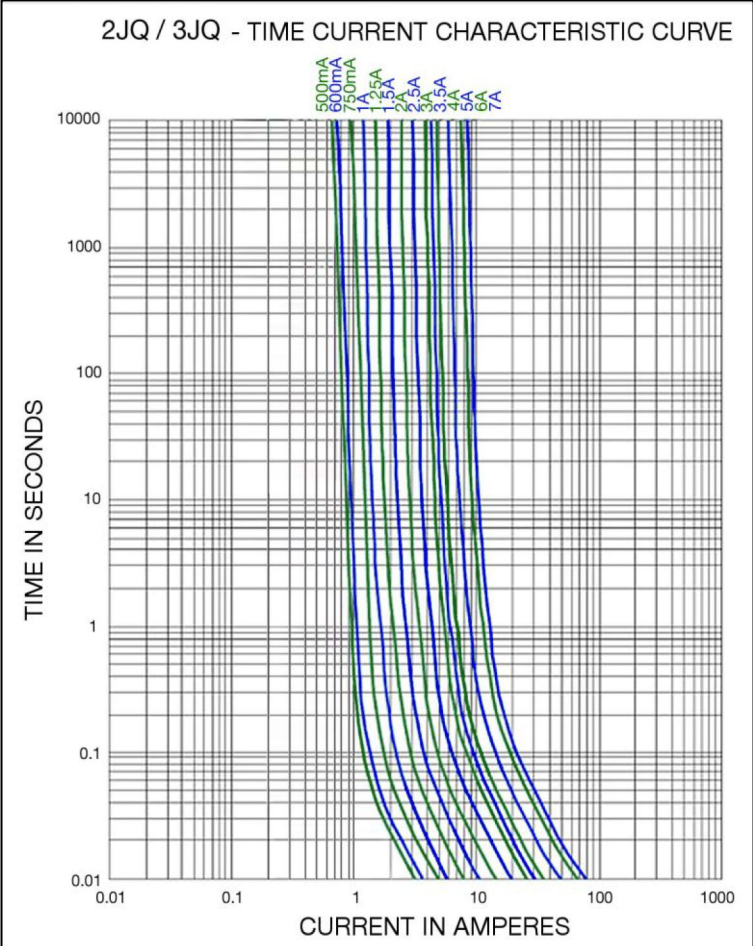
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# Type 2JQ / 3JQ

Temperature Derating Curve

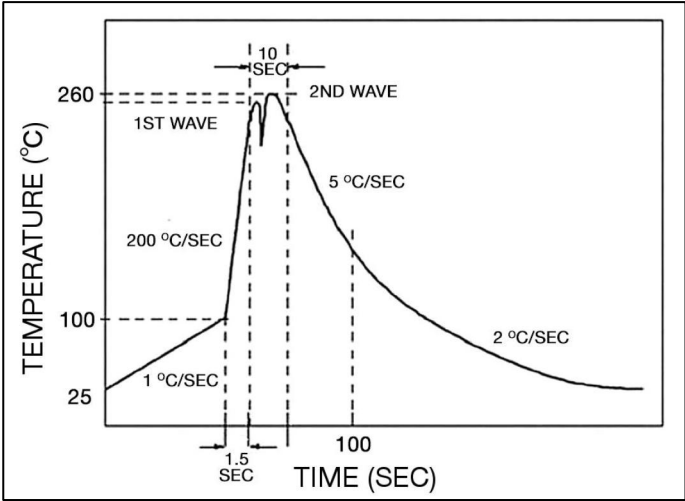


Average Time Current Curve



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 Tp                                | 260°C                                        |
| Time within +0°C / -5°C of actual peak temperature | 10 seconds                                   |
| Ramp-down rate                                     | 5°C / second max.                            |



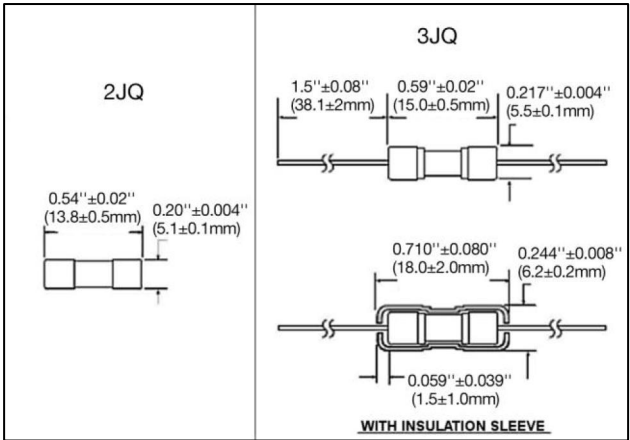
# Type 2JQ / 3JQ

Fuse FGNO Explanation  
0657 R [XXXX] -XX  
0657R=2JQ/3JQ; [XXXX]=Ampere Rating; XX=See Ordering Information as below

| Fraction | Decimal | Milliamps | Bel FGNO[XXXX] |
|----------|---------|-----------|----------------|
| 1/2      | .500    | 500       | 0500           |
| 6/10     | .600    | 600       | 0600           |
| 3/4      | .750    | 750       | 0750           |
| 8/10     | .800    | 800       | 0800           |

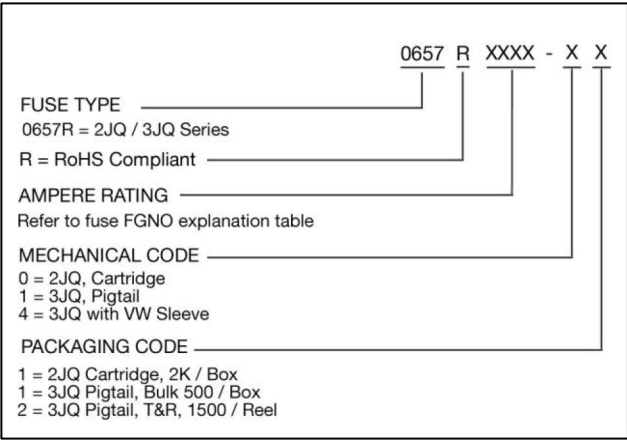
| Fraction | Decimal | Amps | Bel FGNO[XXXX] |
|----------|---------|------|----------------|
|          | 1.0     | 1    | 1000           |
| 1-1/4    | 1.25    | 1.25 | 1250           |
| 1-1/2    | 1.50    | 1.5  | 1500           |
|          | 1.60    | 1.6  | 1600           |
|          | 2.0     | 2    | 2000           |
| 2-1/2    | 2.5     | 2.5  | 2500           |
|          | 3.0     | 3    | 3000           |
| 3-1/2    | 3.5     | 3.5  | 3500           |
|          | 4.0     | 4    | 4000           |
|          | 5.0     | 5    | 5000           |
|          | 6.0     | 6    | 6000           |
|          | 7.0     | 7    | 7000           |

## Mechanical Dimensions



\*Diameter lead 0.032" ± 0.002" for all ratings

## Ordering Information



## Packaging

| Packaging Option                           | Packaging Specification | Quantity | Packaging Code | Inside Tape Spacing |
|--------------------------------------------|-------------------------|----------|----------------|---------------------|
| Bulk (bag)                                 | N/A                     | 2000     | 01             | N/A                 |
| Bulk (Pigtail Type)                        | N/A                     | 500      | 11             | N/A                 |
| Bulk (Pigtail Type) with Insulation Sleeve | N/A                     | 500      | 41             | N/A                 |
| Tape & Reel                                | EIA-296-F               | 1500     | 12             | 10mm Pitch and 53mm |
| Tape & Reel with Insulation Sleeve         | EIA-296-F               | 1500     | 42             | 10mm Pitch and 53mm |



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