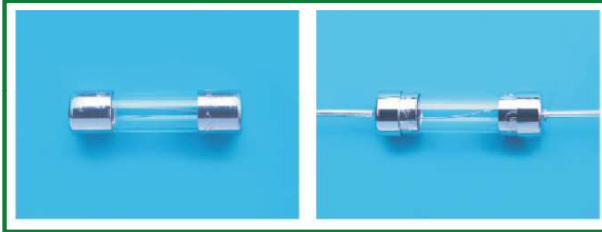


## Type 5MT / 5MTP Medium Blow Fuse Series

5 x 20mm Glass Tube  
RoHS 6 Compliant

HF Pb 5MT / 5MTP Series, 5 x 20mm Medium Blow Fuse



### Description

5x20mm Medium Blow, glass tube body cartridge fuse designed, approved and complied with UL and CSA standard 248-14.

### 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       | 15 Sec  |
| 1000%           | 10 mSec   | N/A     |

### Safety Agency Approvals

| SAFETY AGENCY | SAFETY AGENCY CERTIFICATE NUMBER           | AMPERE RANGE / VOLT @ I.R.ABILITY  |
|---------------|--|--|
|               | E20624                                     | 100mA - 800mA / 250V AC @35A<br>1A - 3A / 250V AC @100A<br>100mA - 5A / 125V AC @10,000A |
|               | LR39772                                    |  |
|               | JET 1037-31003-1010<br>JET 1037-31003-1011 | 1A - 5A / 125V AC @500A  |
|               | JET 1037-31003-1007                        | >5A - 15A / 125V AC @300A  |
|               |  | 100mA - 800mA / 250V AC @35A<br>1A - 3A / 250V AC @100A<br>100mA - 5A / 125V AC @10,000A |

Specifications subject to change without notice

### Features

- Meet UL and CSA standard 248-14
- Wide operating temperature range
- Bulk and Tape & Reel packing available
- RoHS6 compliant
- Halogen Free
- Leadfree

### Applications

Provide individual protection for components or internal circuits.

- Power Supplies
- Battery charger
- Monitor
- Adapter

LEAD FREE =

HALOGEN FREE =

# Type 5MT / 5MTP

## Medium Blow Fuse Series

5 x 20mm Glass Tube  
RoHS 6 Compliant



# bel

5MT May2012D

### Electrical Specifications

| Catalog Number | Ampere Rating | Typical Cold Resistance (ohm) | Volt-drop @100% In (Volt) Max. | Voltage Rating (V) | Interrupting Rating        | Melting I2T <10 m Sec (A2 Sec) | Melting I2T @ 10 In (A2 Sec) | Maximum Power Dissipation (W) | Agency Approvals |   |   |   |   |
|----------------|---------------|-------------------------------|--------------------------------|--------------------|----------------------------|--------------------------------|------------------------------|-------------------------------|------------------|---|---|---|---|
|                |               |                               |                                |                    |                            |                                |                              |                               |                  |   |   |   |   |
| 5MT (P) 100-R  | 100mA         | 11.9                          | 2.02                           | 250                | 100mA-800mA / 250V AC @35A | 0.02                           | 0.04                         | 0.30                          | Y                | Y |   | Y |   |
| 5MT (P) 125-R  | 125mA         | 7.92                          | 1.77                           | 250                |                            | 0.04                           | 0.07                         | 0.32                          | Y                | Y |   | Y |   |
| 5MT (P) 160-R  | 160mA         | 4.82                          | 1.33                           | 250                |                            | 0.06                           | 0.11                         | 0.34                          | Y                | Y |   | Y |   |
| 5MT (P) 200-R  | 200mA         | 3.11                          | 1.13                           | 250                |                            | 0.11                           | 0.18                         | 0.36                          | Y                | Y |   | Y |   |
| 5MT (P) 250-R  | 250mA         | 2.12                          | 0.94                           | 250                |                            | 0.18                           | 0.30                         | 0.38                          | Y                | Y |   | Y |   |
| 5MT (P) 300-R  | 300mA         | 1.51                          | 0.80                           | 250                |                            | 0.31                           | 0.50                         | 0.37                          | Y                | Y |   | Y |   |
| 5MT (P) 375-R  | 375mA         | 1.07                          | 0.73                           | 250                |                            | 0.47                           | 0.75                         | 0.40                          | Y                | Y |   | Y |   |
| 5MT (P) 500-R  | 500mA         | 0.61                          | 0.57                           | 250                |                            | 0.88                           | 1.40                         | 0.43                          | Y                | Y |   | Y |   |
| 5MT (P) 600-R  | 600mA         | 0.430                         | 0.44                           | 250                |                            | 1.5                            | 2.3                          | 0.45                          | Y                | Y |   | Y |   |
| 5MT (P) 700-R  | 700mA         | 0.340                         | 0.42                           | 250                |                            | 2.2                            | 2.5                          | 0.48                          | Y                | Y |   | Y |   |
| 5MT (P) 750-R  | 750mA         | 0.290                         | 0.39                           | 250                |                            | 2.3                            | 3.5                          | 0.49                          | Y                | Y |   | Y |   |
| 5MT (P) 800-R  | 800mA         | 0.261                         | 0.36                           | 250                |                            | 3.8                            | 4.2                          | 0.49                          | Y                | Y |   | Y |   |
| 5MT (P) 1-R    | 1A            | 0.183                         | 0.33                           | 250                |                            | 100mA - 5A / 125V AC @10,000A  | 4.2                          | 6.4                           | 0.49             | Y | Y | Y | Y |
| 5MT (P) 1.25-R | 1.25A         | 0.124                         | 0.28                           | 250                |                            |                                | 7.2                          | 11                            | 0.52             | Y | Y | Y | Y |
| 5MT (P) 1.6-R  | 1.6A          | 0.081                         | 0.23                           | 250                |                            |                                | 12                           | 18                            | 0.55             | Y | Y | Y | Y |
| 5MT (P) 2-R    | 2A            | 0.061                         | 0.22                           | 250                |                            |                                | 20                           | 29                            | 0.59             | Y | Y | Y | Y |
| 5MT (P) 2.5-R  | 2.5A          | 0.043                         | 0.19                           | 250                |                            |                                | 35                           | 49                            | 0.65             | Y | Y | Y | Y |
| 5MT (P) 3-R    | 3A            | 0.036                         | 0.19                           | 250                | 58                         |                                | 82                           | 0.74                          | Y                | Y | Y | Y |   |
| 5MT (P) 3.5-R  | 3.5A          | 0.029                         | 0.18                           | 250                | 76                         |                                | 105                          | 0.84                          | Y                | Y | Y | Y |   |
| 5MT (P) 4-R    | 4A            | 0.025                         | 0.18                           | 250                | 99                         |                                | 136                          | 0.91                          | Y                | Y | Y | Y |   |
| 5MT (P) 5-R    | 5A            | 0.019                         | 0.17                           | 250                | 167                        |                                | 226                          | 1.10                          | Y                | Y | Y | Y |   |
| 5MT (P) 6-R    | 6A            | 0.014                         | 0.16                           | 250                | 6A-7A/125V AC @300A        |                                | 315                          | 428                           | 1.30             |   |   | Y | Y |
| 5MT (P) 7-R    | 7A            | 0.012                         | 0.15                           | 250                |                            | 750                            | 1059                         | 2.10                          |                  |   | Y | Y |   |

Consult manufacturer for other ratings

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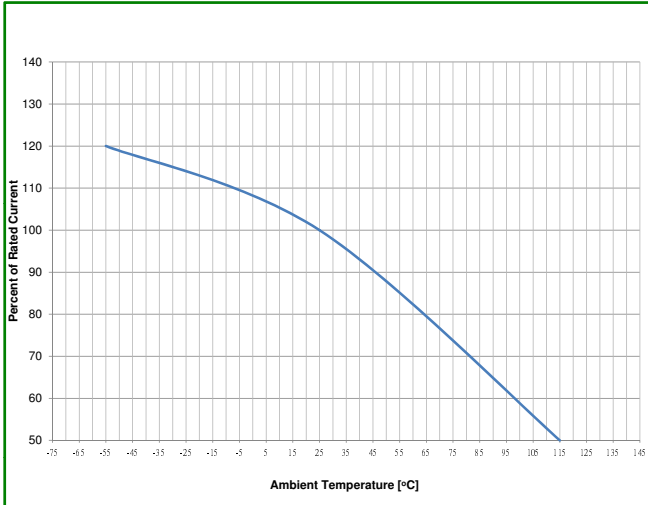
# Type 5MT / 5MTP Medium Blow Fuse Series

5 x 20mm Glass Tube  
RoHS 6 Compliant



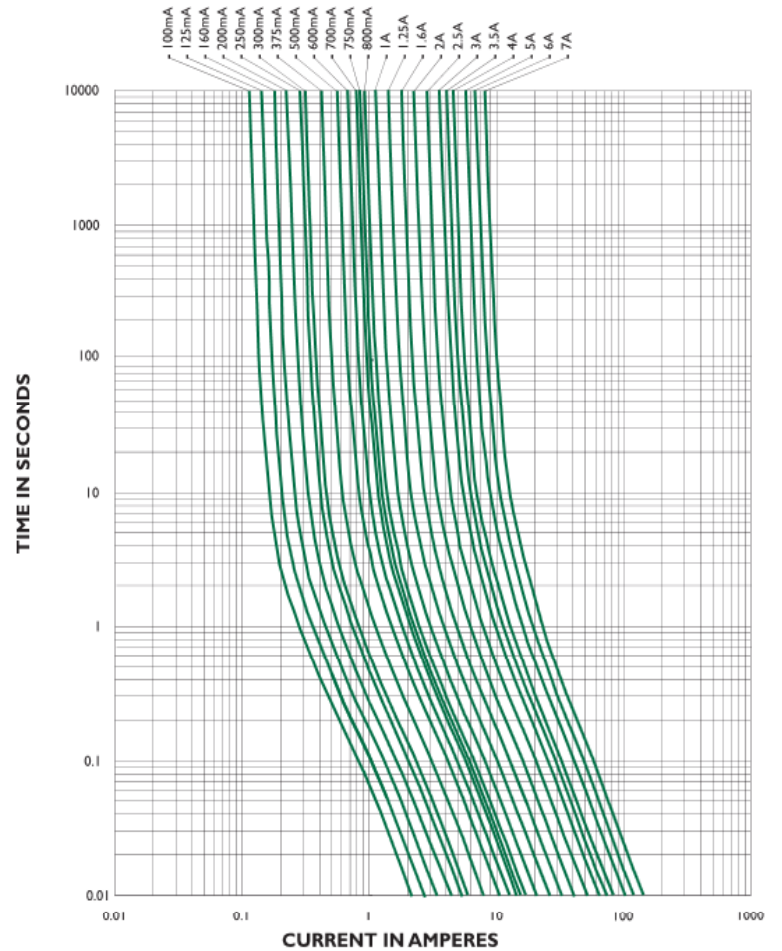
5MT May2012C

## Temperature Derating Curve



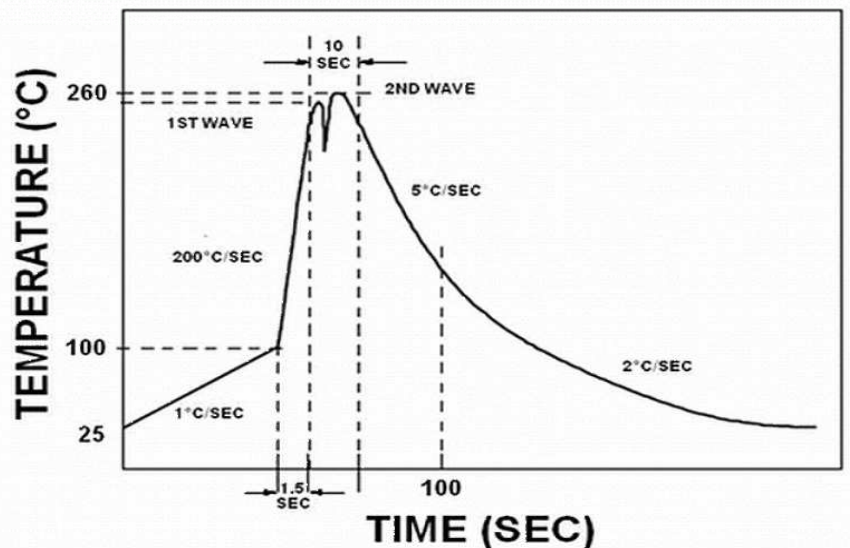
## Average Time Current Curve

### 5MT / 5MTP - TIME CURRENT CHARACTERISTIC 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.                            |



# Type 5MT / 5MTP Medium Blow Fuse Series

5 x 20mm Glass Tube  
RoHS 6 Compliant



5MT May2012D

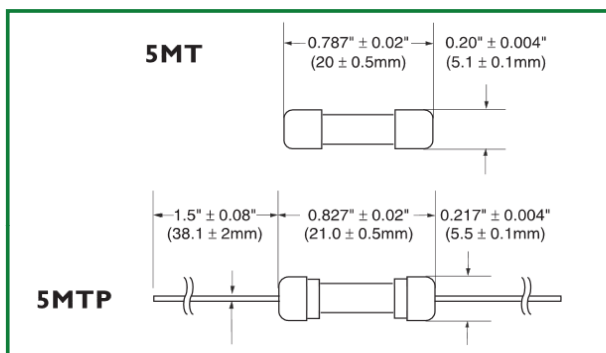
## Physical Specifications

|                  |   |
|------------------|---|
| <b>Materials</b> | Body : Glass  |
|                  | Cap : Nickel Plated Brass Caps  |
|                  | Leads: Matte Tin Plated Copper  |
| <b>Marking</b>   | On Fuse:<br>"bel", "5MT", "Current Rating", "Voltage Rating",<br>"Appropriate Safety Logos", "✓" (RoHS 6 compliant)   |
|                  | On label:<br>"bel", "5MT", or "5MTP", "Current Rating", "Voltage Rating", "Interrupting Rating",<br>"Appropriate Safety Logos" and "M", "e" (China RoHS compliant). |
|                  |   |
|                  |   |

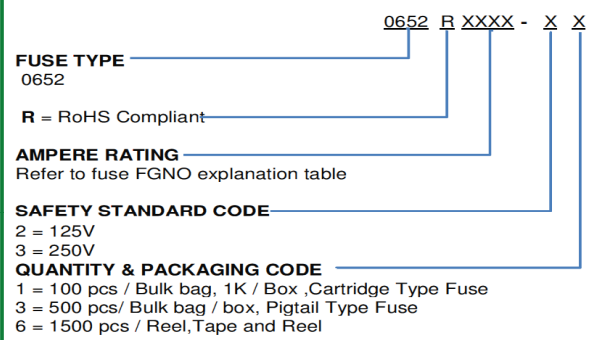
## Environmental Specifications

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

## Mechanical Dimensions



## Ordering Information



\* Ratings 5A and less have 0.032" diameter lead:  
Ratings 6A and above have 0.040" diameter lead.

Specifications subject to change without notice

## Packaging

| Packaging Option         | Packaging Specification | Quantity | Packaging Code | Inside Tape Spacing |
|--------------------------|-------------------------|----------|----------------|---------------------|
| Bulk                     | N/A                     | 100      | 33 / 21        | N/A                 |
| Bulk (Pigtail Type)      | N/A                     | 500      | 33 / 23        | N/A                 |
| Tape & Reel, 10 mm Pitch | EIA-296-F               | 1500     | 36 / 26        | 63                  |

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