

RoHS

**bel**

UMTS Apr2013D

RoHS 6 Compliant

## Type UMTS ,250V UMF

### Square Ceramic Surface Mount Time Lag Fuse



#### UMTS Series Fuse



#### Electrical Characteristics

| Testing Current | Blow Time |         |
|-----------------|-----------|---------|
|                 | Minimum   | Maximum |
| 125%            | 1 Hr.     | N/A     |
| 200%            | N/A       | 2 Min.  |
| 1000%           | 0.01 Sec  | 0.1 Sec |

#### Safety Agent Approvals

| SAFETY AGENCY | SAFETY AGENCY CERTIFICATE | AMPERE RANGE / VOLT @ I.R.ABILITY              |
|---------------|---------------------------|------------------------------------------------|
|               | E315341                   | 100mA - 6.3A / 250V @150A AC and 350V @100A AC |
|               |                           | 100mA - 6.3A / 250V @150A AC and 350V @100A AC |

#### Features

- Time Lag
- 250VAC Voltage Rating
- Wide range of current rating from 100mA to 6.3A
- Wide operating temperature range
- Tape and Reel for auto-insert SMD process.
- RoHS6 compliant
- Halogen Free
- Leadfree

#### Applications

- Lighting system
- LCD monitor
- Office electronic equipment
- Industrial equipment
- Medical equipment
- Power supply

HALOGEN FREE =

LEAD FREE =

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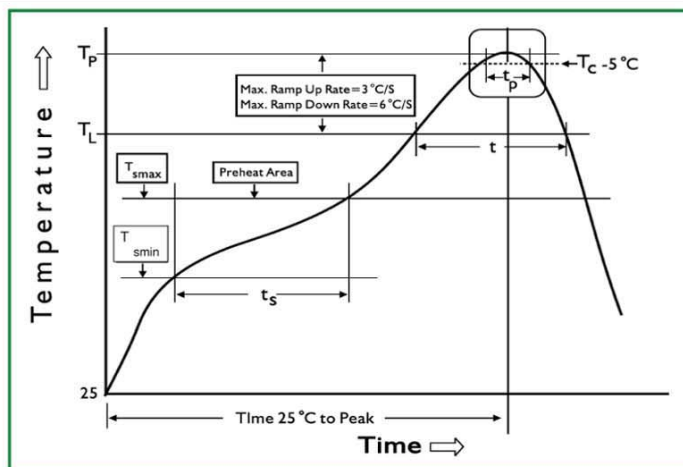
### Electrical Specifications

| Catalog Number | Ampere Rating (A) | Typical Cold Resistance (ohm) | Volt-drop @100% In (volt) Max. | Voltage Rating (V) | Interrupting Rating                              | Melting I <sup>2</sup> T @ 10 In (A <sup>2</sup> Sec) | Maximum Power Dissipation (W) | Agency Approvals |    |
|----------------|-------------------|-------------------------------|--------------------------------|--------------------|--------------------------------------------------|-------------------------------------------------------|-------------------------------|------------------|----|
|                |                   |                               |                                |                    |                                                  |                                                       |                               | UL               | CE |
| UMTS 250       | 250mA             | 0.78                          | 0.314                          | 250                | 100mA - 6.3A / 250V @ 150A AC and 350V @ 100A AC | 0.26                                                  | 0.12                          | Y                | Y  |
| UMTS 315       | 315mA             | 0.56                          | 0.279                          | 250                |                                                  | 0.42                                                  | 0.14                          | Y                | Y  |
| UMTS 400       | 400mA             | 0.35                          | 0.248                          | 250                |                                                  | 0.67                                                  | 0.16                          | Y                | Y  |
| UMTS 500       | 500mA             | 0.245                         | 0.221                          | 250                |                                                  | 1.1                                                   | 0.19                          | Y                | Y  |
| UMTS 630       | 630mA             | 0.180                         | 0.197                          | 250                |                                                  | 1.7                                                   | 0.21                          | Y                | Y  |
| UMTS 800       | 800mA             | 0.132                         | 0.175                          | 250                |                                                  | 2.8                                                   | 0.25                          | Y                | Y  |
| UMTS 1         | 1A                | 0.085                         | 0.156                          | 250                |                                                  | 4.4                                                   | 0.28                          | Y                | Y  |
| UMTS 1.25      | 1.25A             | 0.065                         | 0.139                          | 250                |                                                  | 7.0                                                   | 0.33                          | Y                | Y  |
| UMTS 1.6       | 1.6A              | 0.061                         | 0.110                          | 250                |                                                  | 5.6                                                   | 0.37                          | Y                | Y  |
| UMTS 2         | 2A                | 0.043                         | 0.108                          | 250                |                                                  | 9.2                                                   | 0.43                          | Y                | Y  |
| UMTS 2.5       | 2.5A              | 0.035                         | 0.106                          | 250                |                                                  | 15                                                    | 0.50                          | Y                | Y  |
| UMTS 3.15      | 3.15A             | 0.025                         | 0.104                          | 250                |                                                  | 25                                                    | 0.57                          | Y                | Y  |
| UMTS 4         | 4A                | 0.020                         | 0.101                          | 250                |                                                  | 42                                                    | 0.66                          | Y                | Y  |
| UMTS 5         | 5A                | 0.014                         | 0.099                          | 250                |                                                  | 69                                                    | 0.75                          | Y                | Y  |
| UMTS 6.3       | 6.3A              | 0.011                         | 0.097                          | 250                |                                                  | 113                                                   | 0.87                          | Y                | Y  |

Consult manufacturer for other ratings

### Soldering Parameters

| IR Reflow Profile                  |                       |
|------------------------------------|-----------------------|
| Reflow Parameter                   |                       |
| Minimum preheat temperature(TsMIN) | 130°C                 |
| Maximum preheat temperature(TsMAX) | 170°C                 |
| Preheat Time                       | 60-180 seconds        |
| TsMAX to TL ramp-up rate           | 3°C / second max.     |
| Time above temperature TL(TL)      | 200 °C 60-120 seconds |
| Peak Temperature (TP)              | 240 °C max.           |
| Time Within 5σ of Peak TP          | 20 - 30 seconds       |
| Ramp-down rate                     | 6°C / second max.     |



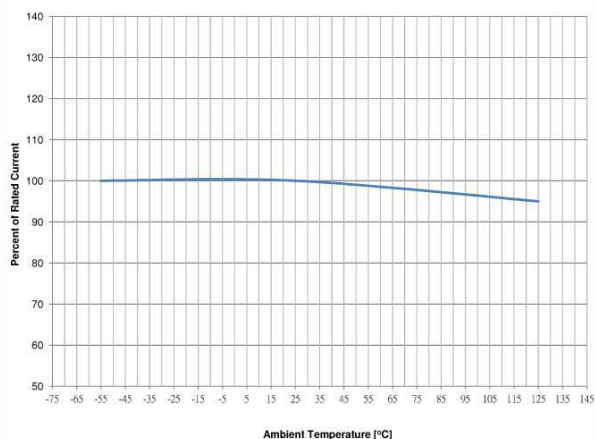


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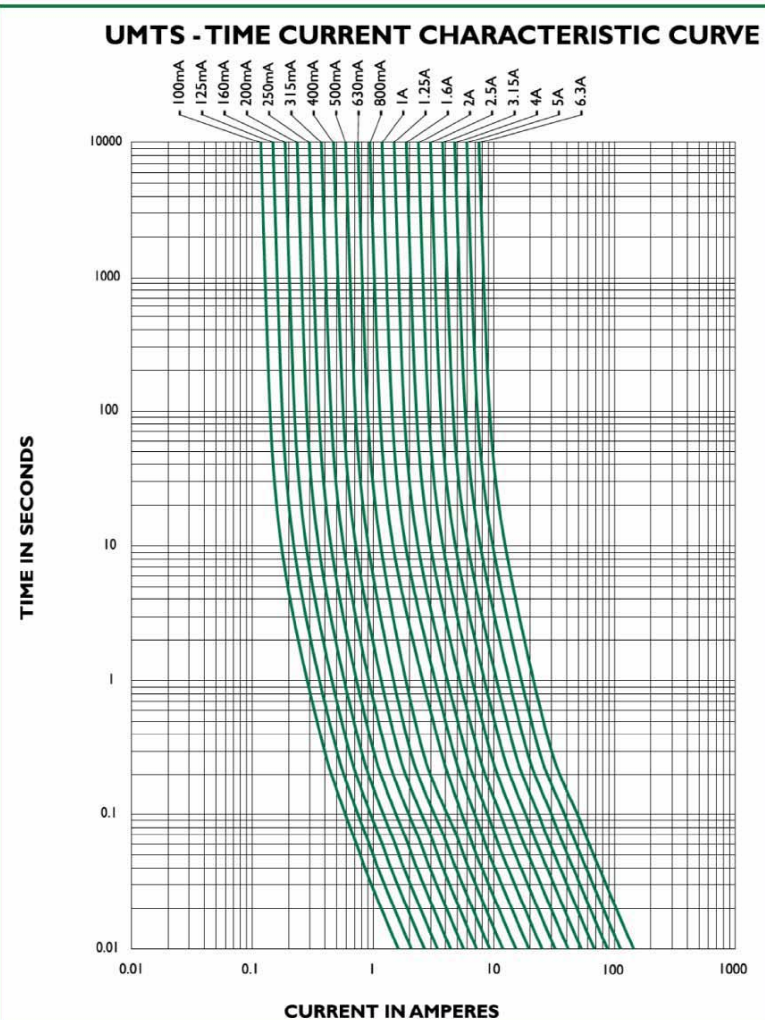
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Temperature Derating Curve



Average Time Current Curve



Environmental Specifications

|                           |                                                                                                  |
|---------------------------|--------------------------------------------------------------------------------------------------|
| Shock Resistance          | MIL-STD-202G, Method 213B, Test Condition I (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 B (After Opening) 0.1Mohms minimum.                     |
| Solderability             | MIL-STD-202G, Method 208H                                                                        |
| Resistance to solder Heat | MIL-STD-202G Method 210F, Test Condition J. (235 °C, 30 sec)                                     |
| Thermal Shock             | MIL-STD-202G, Method 107G, Test Condition B (-65 °C to +125 °C).                                 |
| Operating Temperature     | -55 °C to +125 °C                                                                                |



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## Physical Specifications

|                  |                                                                                                                                       |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>Materials</b> | Body : Ceramic                                                                                                                        |
|                  | Terminations: Brass Caps, gold plated with nickel undercoating                                                                        |
| <b>Marking</b>   | On Fuse:                                                                                                                              |
|                  | " bel ", " T ", " Current Rating ", " L ", " 250V ", in black color,                                                                  |
|                  | On label:                                                                                                                             |
|                  | "bel", "UMTS", "Current Rating", "Voltage Rating", "Interrupting Rating", "Appropriate Safety Logos" and "  " (China RoHS compliant). |

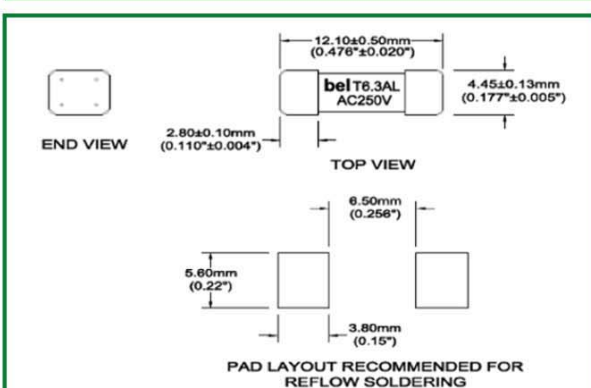
## Fuse FGNO Explanation

06XX-[XXXX]-XX, [XXXX]=Ampere Rating

| Fraction | Decimal | Milliamps | Bel FGNO[XXXX] |
|----------|---------|-----------|----------------|
| 1/32     | 0.032   | 32        | 0032           |
| 1/25     | .040    | 40        | 0040           |
| 1/20     | .050    | 50        | 0050           |
| 1/16     | .063    | 63        | 0063           |
| 8/100    | .080    | 80        | 0080           |
| 1/10     | .100    | 100       | 0100           |
| 1/8      | .125    | 125       | 0125           |
| 15/100   | .150    | 150       | 0150           |
|          | .160    | 160       | 0160           |
| 2/10     | .200    | 200       | 0200           |
| 1/4      | .250    | 250       | 0250           |
| 3/10     | .300    | 300       | 0300           |
|          | .315    | 315       | 0315           |
| 3/8      | .375    | 375       | 0375           |
| 4/10     | .400    | 400       | 0400           |
| 1/2      | .500    | 500       | 0500           |
| 6/10     | .600    | 600       | 0600           |
|          | .630    | 630       | 0630           |
| 7/10     | .700    | 700       | 0700           |
| 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           |
| 2-1/4    | 2.25    | 2.25 | 2250           |
| 2-1/2    | 2.5     | 2.5  | 2500           |
|          | 3.0     | 3    | 3000           |
|          | 3.15    | 3.15 | 3150           |
| 3-1/2    | 3.5     | 3.5  | 3500           |
|          | 4.0     | 4    | 4000           |
|          | 5.0     | 5    | 5000           |
|          | 6.0     | 6    | 6000           |
|          | 6.3     | 6.3  | 6300           |
|          | 7.0     | 7    | 7000           |
| 7-1/2    | 7.5     | 7.5  | 7500           |
|          | 8.0     | 8    | 8000           |
|          |         | 10   | 9100           |
|          |         | 12   | 9120           |
|          |         | 15   | 9150           |
|          |         | 20   | 9200           |
|          |         | 25   | 9250           |
|          |         | 30   | 9300           |

## Mechanical Dimensions



## Ordering Information

|                                      |                                      |
|--------------------------------------|--------------------------------------|
| <b>FUSE TYPE</b>                     | 0683                                 |
| <b>AMPERE RATING</b>                 | Refer to fuse FGNO explanation table |
| <b>QUANTITY &amp; PACKAGING CODE</b> | 01 = 1500 pcs with Tape and Reel     |

## Packaging

| Packaging Tape & Reel                        | Packaging Specification | Quantity | Quantity & Packaging Code |
|----------------------------------------------|-------------------------|----------|---------------------------|
| 24 mm wide tape with 13 inches Diameter reel | EIA Standard 481-D      | 1500     | 01                        |

Specifications Subject to change without notice.

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