

RoHS

bel

UMTS Apr2013D

RoHS 6 Compliant

Type UMTS ,250V UMF
Square Ceramic Surface Mount Time Lag Fuse

HF **Pb** UMTS Series Fuse

cUL_{US} CE



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 **HF**
- Leadfree **Pb**

Applications

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

HALOGEN FREE = **HF**

LEAD FREE = **Pb**

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 |
|-------------------|---------------------------|--|
| cUL _{US} | E315341 | 100mA - 6.3A / 250V @150A AC and 350V @100A AC |
| CE | | 100mA - 6.3A / 250V @150A AC and 350V @100A AC |

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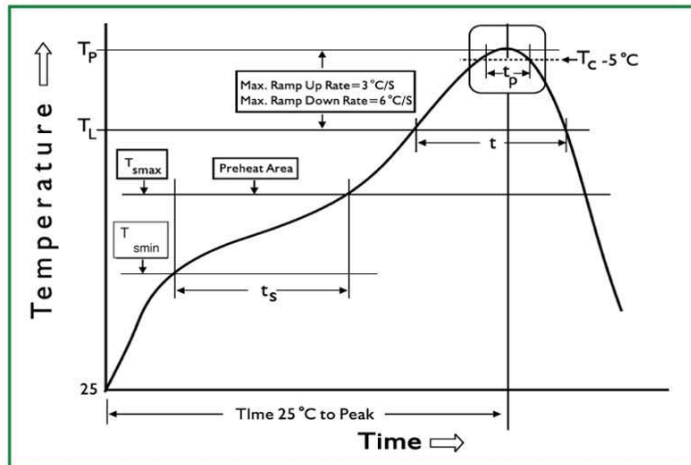
Electrical Specifications

| Catalog Number | Ampere Rating (A) | Typical Cold Resistance (ohm) | Volt-drop @100% In (volt) Max. | Voltage Rating (V) | Interrupting Rating | Melting I ² T @ 10 In (A ² Sec) | Maximum Power Dissipation (W) | Agency Approvals | |
|----------------|-------------------|-------------------------------|--------------------------------|--------------------|--|---|-------------------------------|------------------|----|
| | | | | | | | | UL US | 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 |

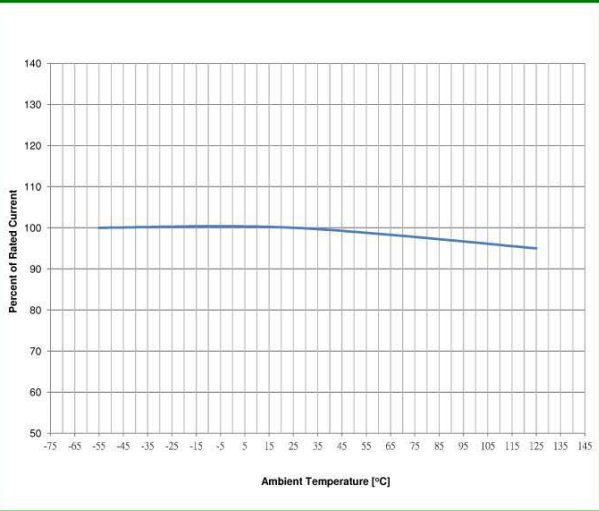
Consult manufacturer for other ratings

Soldering Parameters

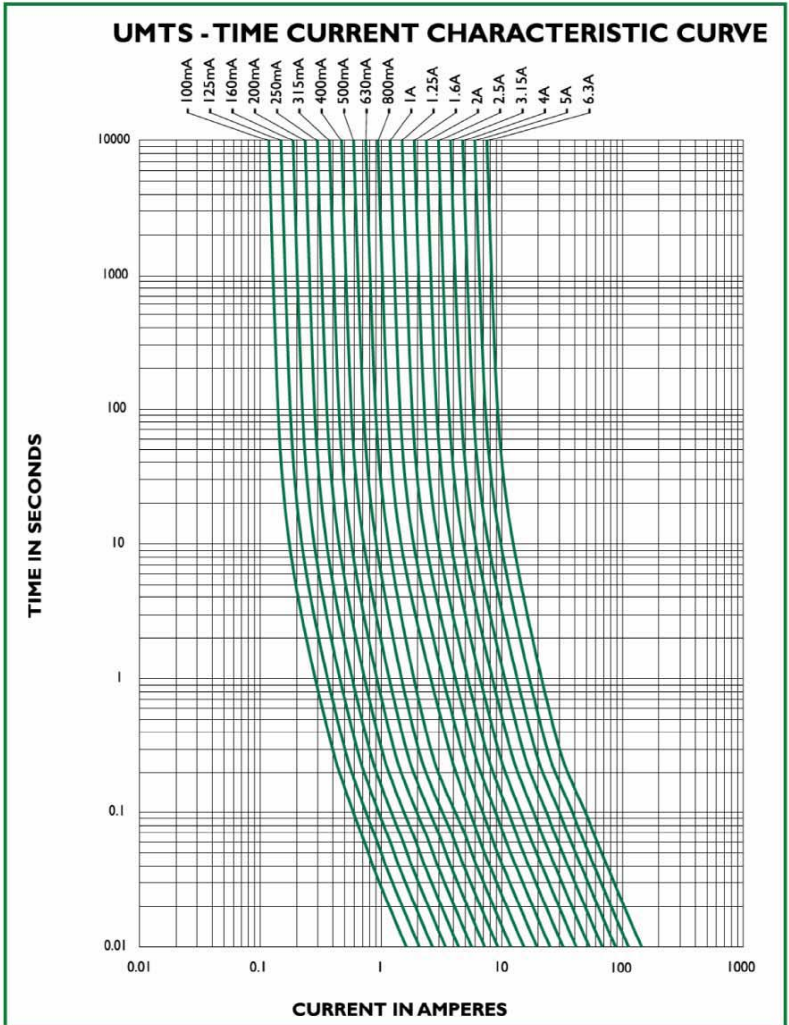
| IR Reflow Profile | |
|------------------------------------|-----------------------|
| Reflow Parameter | |
| Minimum preheat temperature(TsMIN) | 130°C |
| Maximum preheat temperature(TsMAX) | 170°C |
| Preheat Time | 60-180 seconds |
| TsMAX to TL ramp-up rate | 3°C / second max. |
| Time above temperature 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. |



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

| | |
|------------------|---|
| Materials | Body : Ceramic |
| | Terminations: Brass Caps, gold plated with nickel undercoating |
| Marking | 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). |

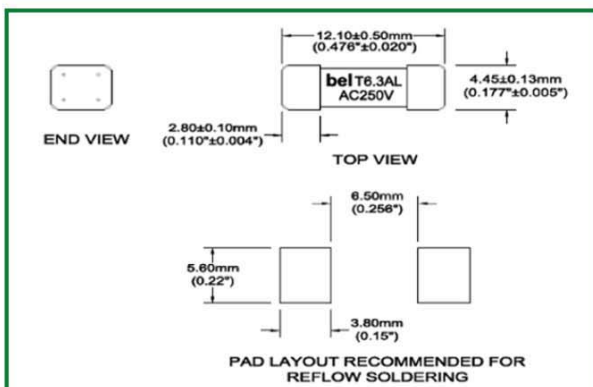
Fuse FGNO Explanation

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

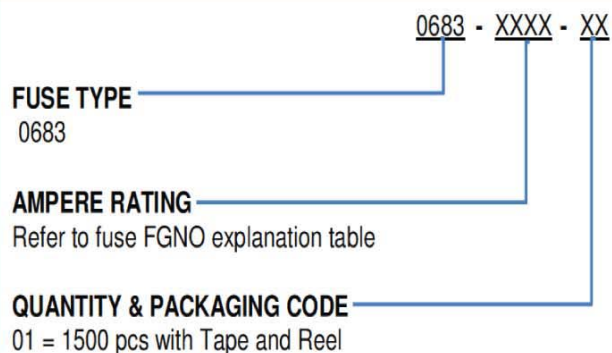
| Fraction | Decimal | Milliamps | Bel FGNO[XXXX] |
|----------|---------|-----------|----------------|
| 1/32 | .032 | 32 | 0032 |
| 1/25 | .040 | 40 | 0040 |
| 1/20 | .050 | 50 | 0050 |
| 1/16 | .063 | 63 | 0063 |
| 8/100 | .080 | 80 | 0080 |
| 1/10 | .100 | 100 | 0100 |
| 1/8 | .125 | 125 | 0125 |
| 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



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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