

# ANTREX Electronics

## Electronic Components Sourcing Information

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### Product Reference Information

|                      |                           |
|----------------------|---------------------------|
| <b>Part Number:</b>  | UMTS 400                  |
| <b>Manufacturer:</b> | Bel Fuse Inc.             |
| <b>Package:</b>      | Tape & Reel (TR)          |
| <b>Availability:</b> | Please confirm with sales |

#### Product Page:

<https://antrexco.com/product/details/bel-fuse-inc/umts-400.html>

#### Request a Quote:

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### Contact Information

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### Quality & Trust

New & Original Components

Supplier verification and packaging condition review

CoC / RoHS / REACH documents available on request

Secure sourcing support for OEM / EMS projects

#### Note:

This PDF includes an ANTREX product reference cover page.

The original manufacturer datasheet follows from the next page.

# Type UMTS 250V UMF

## Square Ceramic Surface Mount Time Lag Fuse

HF Pb UMTS Series – 4818 Size

RoHS 2 Compliant

### Features

- Time lag
- 250VAC, Voltage Rating
- Wide range of current rating from 250mA to 6.3A
- Wide operating temperature range
- Tape & Reel for auto-insert SMD process
- RoHS 2 compliant
- Halogen Free
- Lead Free



### Applications

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

LEAD FREE =   
HALOGEN FREE = 

### Electrical Characteristics (Per IEC60127-4)

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

### Safety Agency Approvals

| Safety Agency                                                                       | Safety Agency Certificate                                                          | Voltage Rating (V)             | Ampere Range / Volt @ I.R. ability*      |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------|------------------------------------------|
|  | E315341                                                                            | 250mA–6.3A/250V AC<br>/350V AC | 250mA-6.3A/250V@150A AC<br>/350V@100A AC |
|  | R 50399509<br>Tested according to<br>IEC60127-<br>1:2006+A1+A2<br>IEC 60127-7:2016 | 1.6A/250V AC<br>/350V AC       | 1.6A/250V@150A AC<br>/350V@100A AC       |

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

### 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",<br>"Appropriate Safety Logos" and "  ", "  (China RoHS compliant). |

## Environmental Specifications

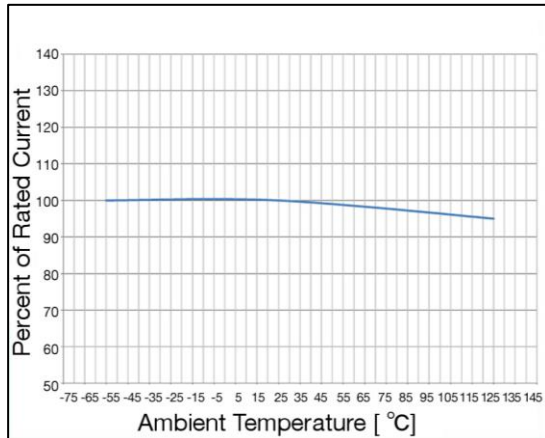
|                            |                                                                                                  |
|----------------------------|--------------------------------------------------------------------------------------------------|
| Shock Resistance           | MIL-STD-202G, 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 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                                                                                  |
| Moisture Sensitivity Level | 1 ( Peak Temperature at 240°C for 30 seconds max )                                               |

## Electrical Specifications

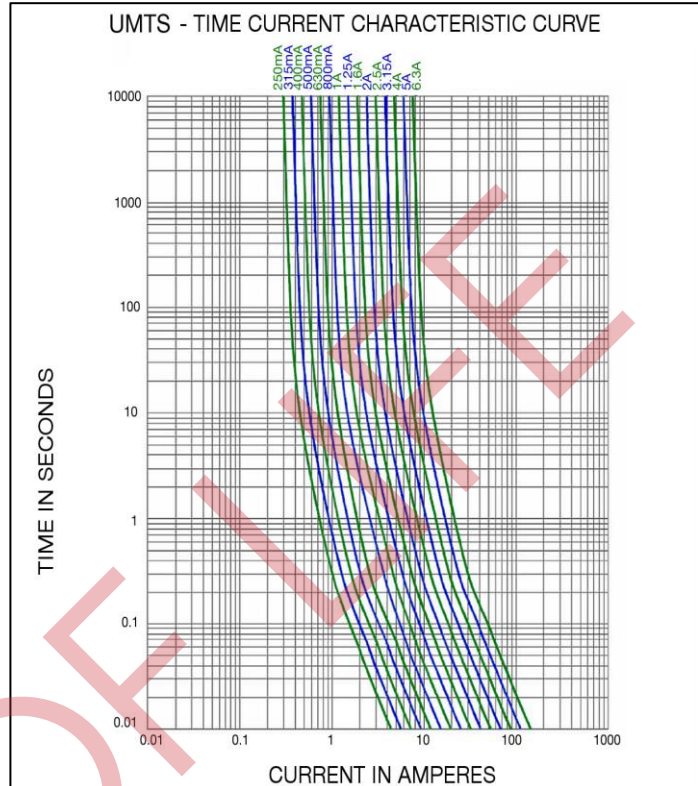
| Catalog Number | Ampere Rating | Typical Cold Resistance (ohms) | Volt-drop @100% In (Volt) max. | Voltage and Interrupting Ratings                                                        | Melting I²T @10 In (A² Sec) | Maximum Power Dissipation (W) | Agency Approvals                                                                     |                                                                                      |
|----------------|---------------|--------------------------------|--------------------------------|-----------------------------------------------------------------------------------------|-----------------------------|-------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|                |               |                                |                                |                                                                                         |                             |                               |  |  |
| UMTS 250       | 250mA         | 0.78                           | 0.314                          | See Table of Safety Approvals on Page 1 for Voltage and associated Interrupting Ratings | 0.26                        | 0.12                          | Y                                                                                    |                                                                                      |
| UMTS 315       | 315mA         | 0.56                           | 0.279                          |                                                                                         | 0.42                        | 0.14                          | Y                                                                                    |                                                                                      |
| UMTS 400       | 400mA         | 0.35                           | 0.248                          |                                                                                         | 0.67                        | 0.16                          | Y                                                                                    |                                                                                      |
| UMTS 500       | 500mA         | 0.245                          | 0.221                          |                                                                                         | 1.1                         | 0.19                          | Y                                                                                    |                                                                                      |
| UMTS 630       | 630mA         | 0.180                          | 0.197                          |                                                                                         | 1.7                         | 0.21                          | Y                                                                                    |                                                                                      |
| UMTS 800       | 800mA         | 0.132                          | 0.175                          |                                                                                         | 2.8                         | 0.25                          | Y                                                                                    |                                                                                      |
| UMTS 1         | 1A            | 0.085                          | 0.156                          |                                                                                         | 4.4                         | 0.28                          | Y                                                                                    |                                                                                      |
| UMTS 1.25      | 1.25A         | 0.065                          | 0.155                          |                                                                                         | 7.0                         | 0.33                          | Y                                                                                    |                                                                                      |
| UMTS 1.6       | 1.6A          | 0.061                          | 0.150                          |                                                                                         | 5.6                         | 0.37                          | Y                                                                                    | Y                                                                                    |
| UMTS 2         | 2A            | 0.043                          | 0.145                          |                                                                                         | 9.2                         | 0.43                          | Y                                                                                    |                                                                                      |
| UMTS 2.5       | 2.5A          | 0.035                          | 0.140                          |                                                                                         | 15                          | 0.50                          | Y                                                                                    |                                                                                      |
| UMTS 3.15      | 3.15A         | 0.025                          | 0.135                          |                                                                                         | 25                          | 0.57                          | Y                                                                                    |                                                                                      |
| UMTS 4         | 4A            | 0.020                          | 0.130                          |                                                                                         | 42                          | 0.66                          | Y                                                                                    |                                                                                      |
| UMTS 5         | 5A            | 0.014                          | 0.120                          |                                                                                         | 69                          | 0.75                          | Y                                                                                    |                                                                                      |
| UMTS 6.3       | 6.3A          | 0.011                          | 0.115                          |                                                                                         | 113                         | 0.87                          | Y                                                                                    |                                                                                      |

Consult manufacturer for other ratings

## Temperature Derating Curve

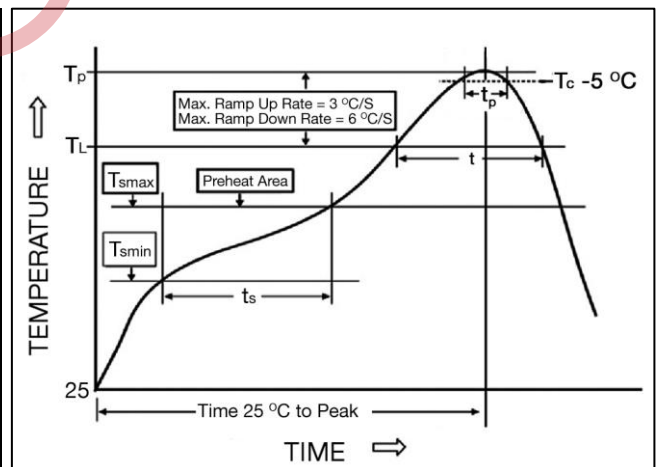


## Average Time Current Curve



## Soldering Parameters

| IR Reflow Profile                                                                               |                 |
|-------------------------------------------------------------------------------------------------|-----------------|
| <b>Preheat &amp; Soak</b>                                                                       |                 |
| Temperature min (T <sub>smin</sub> )                                                            | 150°C           |
| Temperature max (T <sub>smax</sub> )                                                            | 200°C           |
| Time (T <sub>smin</sub> to T <sub>smax</sub> ) (t <sub>s</sub> )                                | 60-120 seconds  |
| Average ramp-up rate (T <sub>smax</sub> to T <sub>p</sub> )                                     | 3°C/second max. |
| Liquidous temperature (T <sub>L</sub> )                                                         | 217°C           |
| Time at liquidous (t <sub>L</sub> )                                                             | 60-150 seconds  |
| Peak temperature (T <sub>p</sub> )                                                              | 240°C max       |
| Time (t <sub>p</sub> ) within 5°C of the specified classification temperature (T <sub>c</sub> ) | 30 seconds      |
| Average ramp-down rate (T <sub>p</sub> to T <sub>smax</sub> )                                   | 6°C/second max. |
| Time 25°C to peak temperature                                                                   | 8 minutes max.  |



### Soldering Guidelines

Reflow Conditions Recommended 240°C, 30 sec. max.

NOT Recommended for Wave solder / Direct immersion / Hand Solder

# Type UMTS 250V UMF

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## Fuse FGNO Explanation

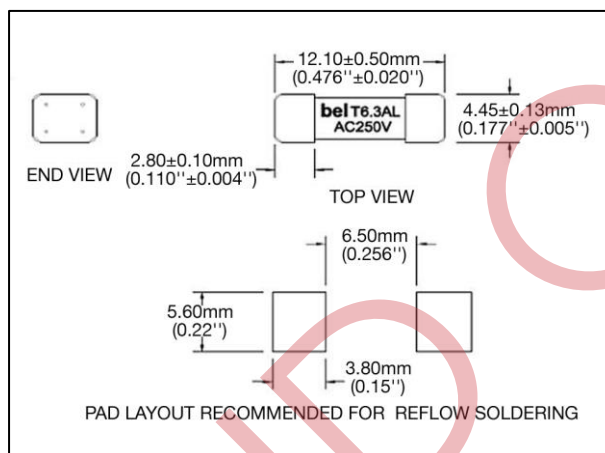
0683 - [XXXX] - XX

0683=UMTS; [XXXX]=Ampere Rating; XX=See Ordering Information as below

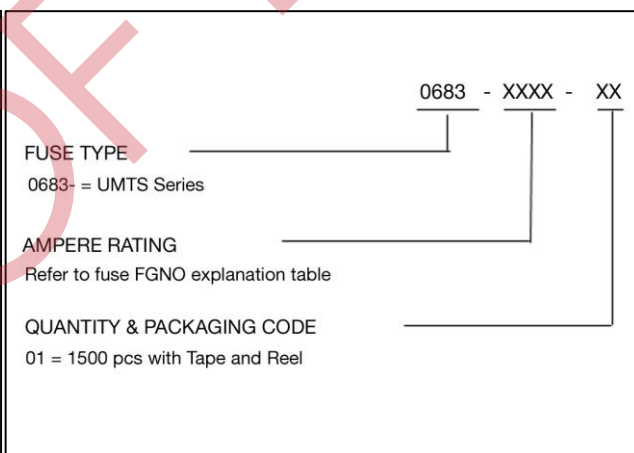
| Fraction | Decimal | Milliamps | Bel FGNO[XXXX] |
|----------|---------|-----------|----------------|
| 1/4      | 0.250   | 250       | 0250           |
|          | .315    | 315       | 0315           |
| 4/10     | .400    | 400       | 0400           |
| 1/2      | .500    | 500       | 0500           |
|          | .630    | 630       | 0630           |
| 8/10     | .800    | 800       | 0800           |
|          |         |           |                |
|          |         |           |                |
|          |         |           |                |

| Fraction | Decimal | Amps | Bel FGNO[XXXX] |
|----------|---------|------|----------------|
|          | 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           |
|          | 3.15    | 3.15 | 3150           |
|          | 4.0     | 4    | 4000           |
|          | 5.0     | 5    | 5000           |
|          | 6.3     | 6.3  | 6300           |

## 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-E      | 1500     | 01                        |