

# Type UMTS 250V UMF

## Square Ceramic Surface Mount Time Lag Fuse

HF  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 /350V AC	250mA-6.3A/250V @ 150A AC /350V @ 100A AC
	R 50399509 Tested according to IEC60127- 1:2006+A1+A2 IEC 60127-7:2016	1.6A/250V AC /350V AC	1.6A/250V @ 150A AC /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", "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 I <sup>2</sup> T @ 10 In (A <sup>2</sup> 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



Specifications subject to change without notice

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## 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



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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



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