

Type UMTS 250V UMF

Square Ceramic Surface Mount Time Lag Fuse

HF **Pb** UMTS Series - 4818 Size

RoHS 6 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 6 compliant
- Halogen Free
- Leadfree

Applications

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

LEAD FREE = **Pb**
HALOGEN FREE = **HF**



Electrical Characteristics (Per IEC 60127-4)

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	250mA-6.3A / 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).

Specifications subject to change without notice



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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 (A)	Typical Cold Resistance (ohm)	Volt-drop @100% In (Volt) max.	Voltage and Interrupting Ratings	Melting I ² T @10 In (A ² 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
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

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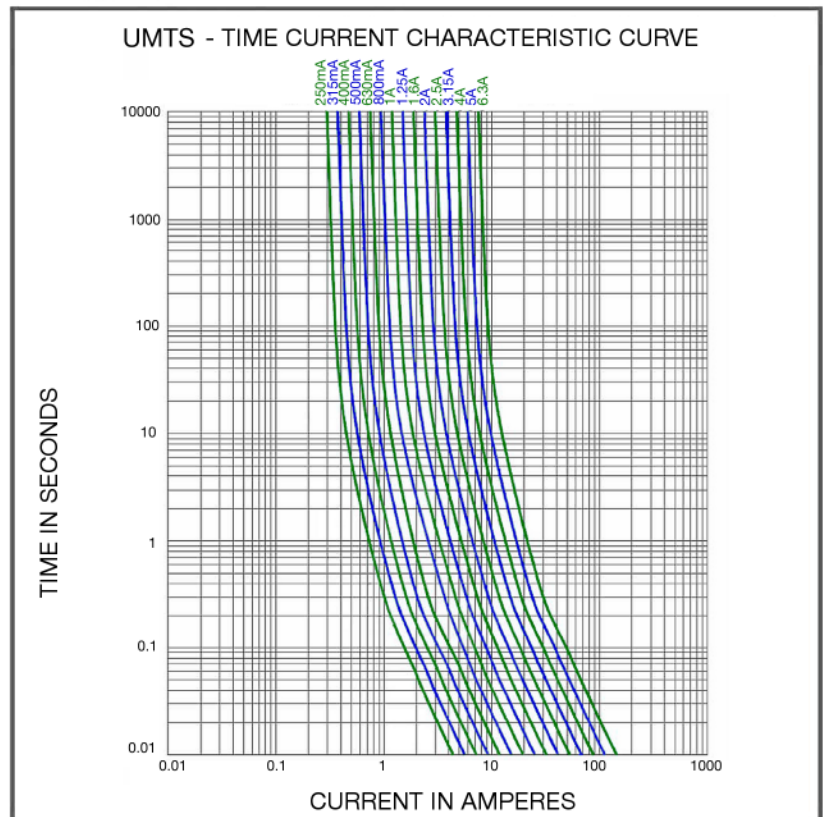
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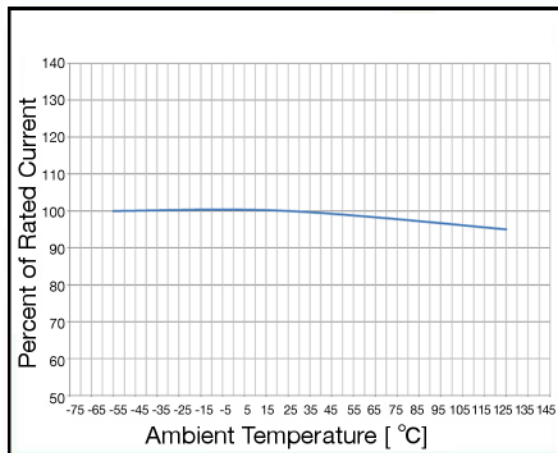
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Average Time Current Curve



Temperature Derating Curve



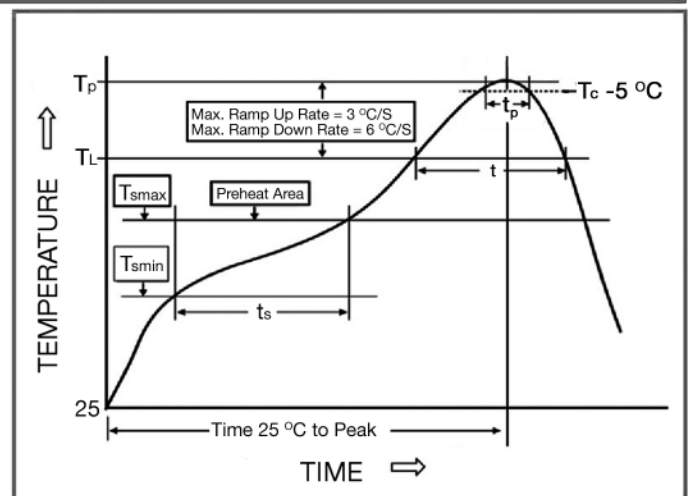
Soldering Parameters

IR Reflow Profile	
Preheat & Soak	
Temperature min (T_{min})	150 °C
Temperature max (T_{max})	200 °C
Time (T_{min} to T_{max}) (t_s)	60 - 120 seconds
Average ramp-up rate (T_{max} to T_p)	3 °C/second max.
Liquidous temperature (T_L)	217 °C
Time at liquidous (t_L)	60 - 150 seconds
Peak temperature (T_p)	240 °C max
Time (t_p) within 5 °C of the specified classification temperature (T_c)	30 seconds
Average ramp-down rate (T_p to T_{max})	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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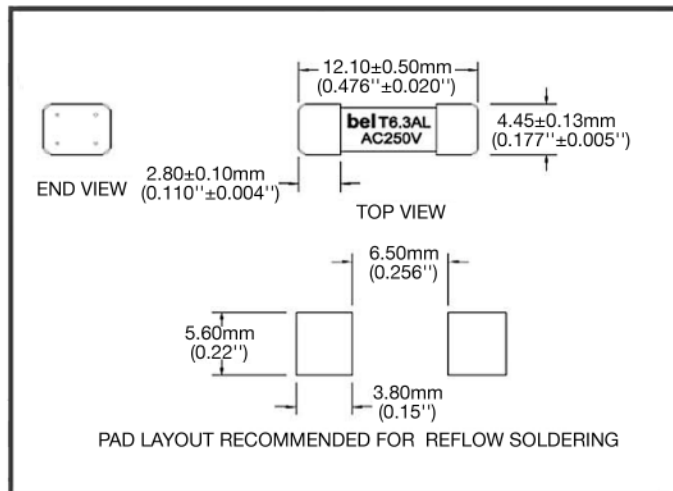
Fuse FGNO Explanation

0683 - [XXXX] - XX

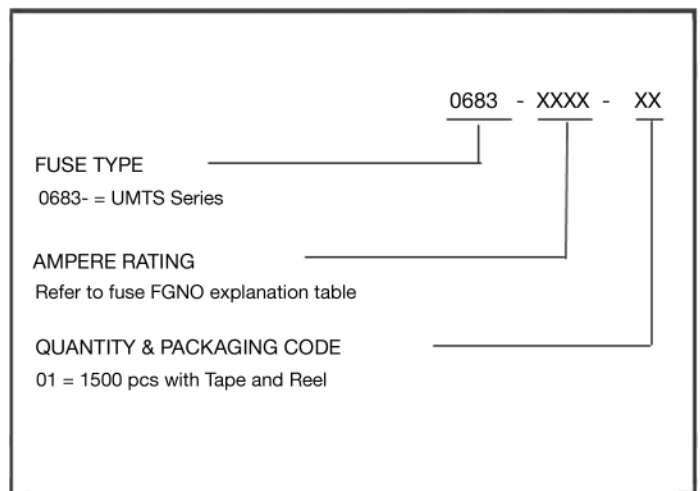
0683=UMTS; [XXXX]=Ampere Rating; XX=See Ordering Information as below

Fraction	Decimal	Milliamps	Bel FGNO[XXXX]	Fraction	Decimal	Amps	Bel FGNO[XXXX]
1/4	0.250	250	0250		1.0	1	1000
	.315	315	0315	1-1/4	1.25	1.25	1250
4/10	.400	400	0400		1.60	1.6	1600
1/2	.500	500	0500		2.0	2	2000
	.630	630	0630	2-1/2	2.5	2.5	2500
8/10	.800	800	0800		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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