

ANTREX Electronics

Electronic Components Sourcing Information

Product Reference Information

Part Number:	UMTS 2.5
Manufacturer:	Bel Fuse Inc.
Package:	Tape & Reel (TR), Cut Tape (CT), Digi-Reel®
Availability:	Please confirm with sales

Product Page:

<https://antrexco.com/product/details/bel-fuse-inc/umts-2-5.html>

Request a Quote:

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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 /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

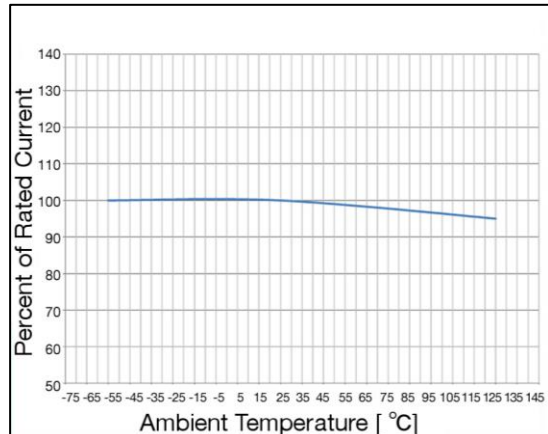
Shock Resistance	MIL-STD-202G, Method 213B, Test Condition 1 (100 G's peak for 6 milliseconds; Sawtooth waveform)
Vibration Resistance	MIL-STD-202G, Method 201A (10-55 Hz, 0.06 inch, total excursion).
Salt Spray Resistance	MIL-STD-202G, Method 101E, Test Condition B (48 hrs).
Insulation Resistance	MIL-STD-202G, 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

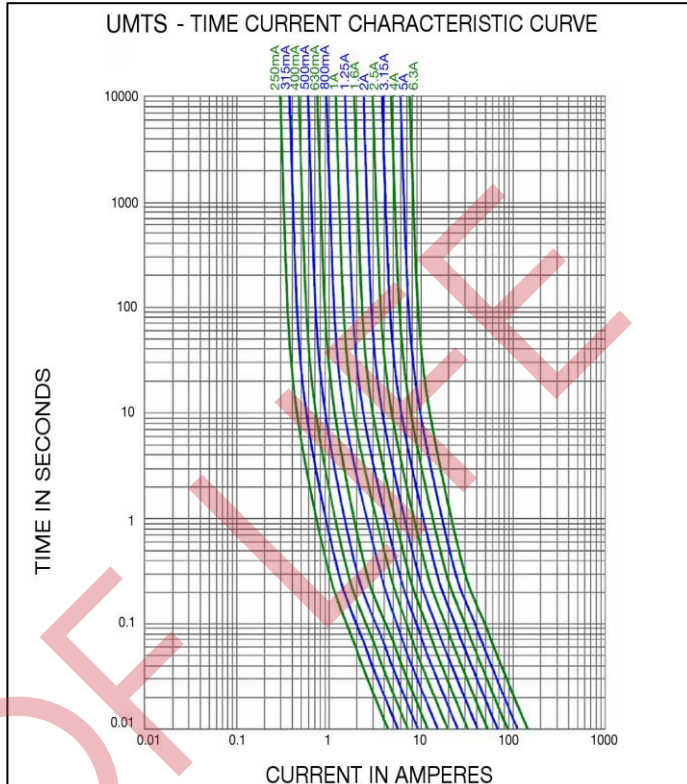
Catalog Number	Ampere Rating	Typical Cold Resistance (ohms)	Volt-drop @100% In (Volt) max.	Voltage and Interrupting Ratings	Melting I²T @10 In (A² Sec)	Maximum Power Dissipation (W)	Agency Approvals	
								
UMTS 250	250mA	0.78	0.314	See Table of Safety Approvals on Page 1 for Voltage and associated 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

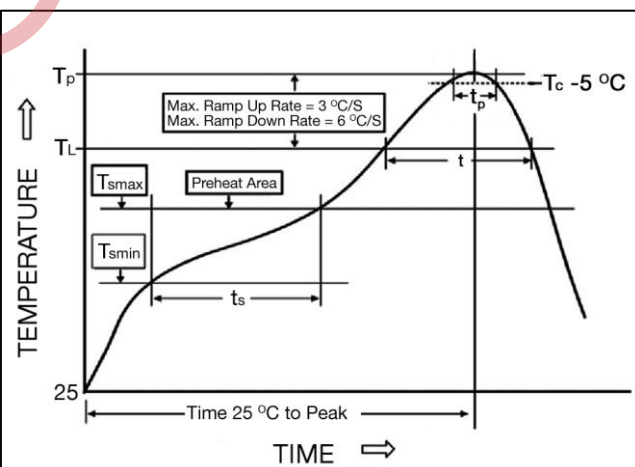


Average Time Current Curve



Soldering Parameters

IR Reflow Profile	
Preheat & Soak	
Temperature min (T _{sm})	150°C
Temperature max (T _{smax})	200°C
Time (T _{sm} to T _{smax}) (ts)	60-120 seconds
Average ramp-up rate (T _{smax} 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 _{smax})	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

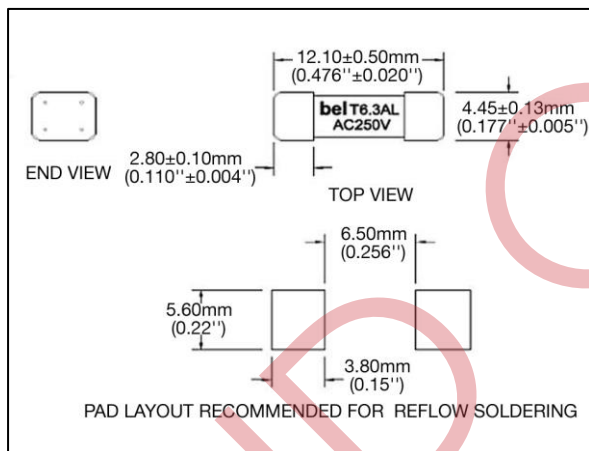
0683 - [XXXX] - XX

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

0683 - XXXX - XX

FUSE TYPE
0683 = UMTS Series

AMPERE RATING
Refer to fuse FGNO explanation table

QUANTITY & PACKAGING CODE
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-E	1500	01