

RoHS

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5ET Apr2013D

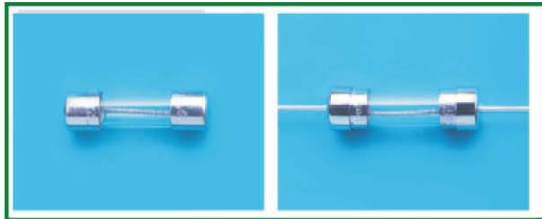
Type 5ET / 5ETP

Time-lag Fuse Series (High Surge-proof, Enhanced-Breaking Capacity)

5 x 20mm Glass Tube
RoHS 6 Compliant



5ET / 5ETP Series, 5 x 20mm Time-lag Fuse



Description

5x20mm Time lag fuse, high surge-proof, enhanced breaking capacity, glass tube body cartridge fuse designed, approved and complied with IEC 60127- 2, standard sheet 6.

Electrical Characteristics (IEC-127-2 STANDARD SHEET 6)

Rated Current	1.5 In		2.1 In		2.75 In		4 In		10 In	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
1A to 12A	1	2	600	10	150	3	20	300		
	hr.	min.	ms	sec	ms	sec	ms	ms	ms	ms

In clause 9.2, the test voltage for 5ETP ratings from 1A to 6.3A is 63VDC.

Features

- Meet IEC standard 60127-2, Sheet 6
- Wide operating temperature range
- Bulk and Tape & Reel packing available
- RoHS6 compliant
- Halogen Free
- Leadfree

Applications

Provide individual protection for components or internal circuits.

- Power Supplies
- Battery charger
- Monitor
- Adapter

LEAD FREE =

HALOGEN FREE =

Safety Agency Approvals

SAFETY AGENCY	SAFETY AGENCY CERTIFICATE NUMBER	AMPERE RANGE / VOLT @ I.R.ABILITY
	800914 903562	1A - 6.3A / 250V AC @150A 8A - 12A / 250V AC @150A
	40007746	1A - 6.3A / 250V AC @150A
	E20624	
	LR39772	
	2003010207030342	

Specifications subject to change without notice

Type 5ET / 5ETP

Time-lag Fuse Series (High Surge-proof, Low Breaking Capacity)

5 x 20mm Glass Tube
RoHS 6 Compliant



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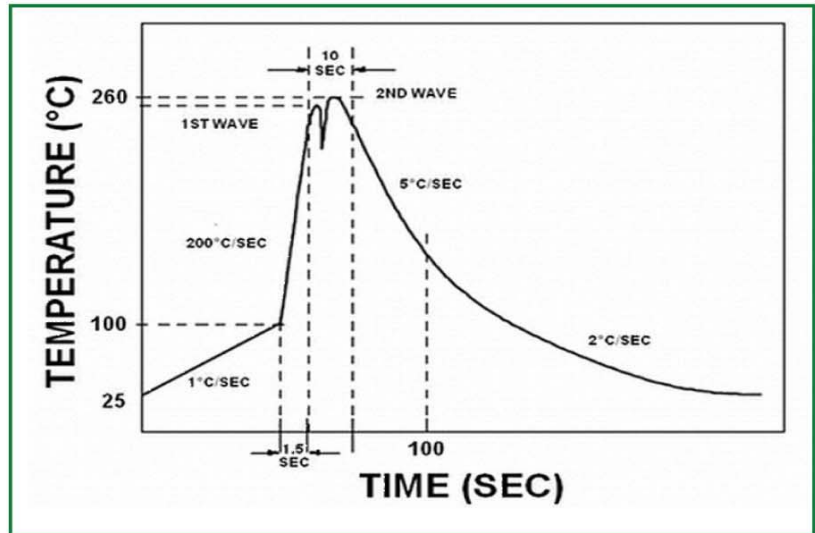
Electrical Specifications

Catalog Number	Ampere Rating	Typical Cold Resistance (ohm)	Volt-drop @ 100% In (Volt) Max.	Voltage Rating (V)	Interrupting Rating	Melting I ₂ T <10 m Sec (A ² Sec)	Melting I ₂ T @ 10 In (A ² Sec)	Maximum Power Dissipation (W)	Agency Approvals					
									UL US	SP	CCC	S	0'E	CE
5ET (P) 1-R	1A	0.111	0.15	250	1A - 6.3A / 250V AC @150A	28	29	0.42	Y	Y	Y	Y	Y	Y
5ET (P) 1.25-R	1.25A	0.073	0.13	250		42	43	0.42	Y	Y	Y	Y	Y	Y
5ET (P) 1.6-R	1.6A	0.058	0.13	250		62	64	0.51	Y	Y	Y	Y	Y	Y
5ET (P) 2-R	2A	0.039	0.12	250		92	95	0.61	Y	Y	Y	Y	Y	Y
5ET (P) 2.5-R	2.5A	0.031	0.12	250		137	142	0.74	Y	Y	Y	Y	Y	Y
5ET (P) 3.15-R	3.15A	0.023	0.10	250		203	211	0.90	Y	Y	Y	Y	Y	Y
5ET (P) 4-R	4A	0.017	0.10	250		300	313	1.08	Y	Y	Y	Y	Y	Y
5ET (P) 5-R	5A	0.012	0.09	250		444	465	1.31	Y	Y	Y	Y	Y	Y
5ET (P) 6.3-R	6.3A	0.010	0.09	250	658	691	1.58	Y	Y	Y	Y	Y	Y	
5ET (P) 8-R	8A	0.007	0.09	250	8A - 12A / 250V AC @150A	252	277	3.11				Y		Y
5ET (P) 10-R	10A	0.006	0.08	250		400	440	3.68				Y		Y
5ET (P) 12-R	12A	0.005	0.08	250		635	699	4.36				Y		Y

Consult manufacturer for other ratings

Soldering Parameters

Lead-free Wave Soldering Profile	
Wave Soldering Parameter	
Average ramp-up rate	200°C / second
Heating rate during preheat	typical 1 - 2°C / second Max. 4°C / second
Final preheat temperature	within 125°C of soldering temperature
Peak temperature T _p	260°C
Time within +0°C / -5°C of actual peak temperature	10 seconds
Ramp-down rate	5°C / second max.



Type 5ET / 5ETP

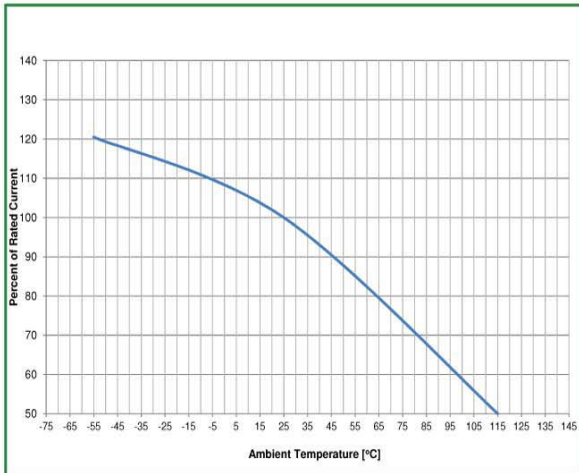
Time-lag Fuse Series (High Surge-proof, Enhanced-breaking Capacity)

5 x 20mm Glass Tube
RoHS 6 Compliant

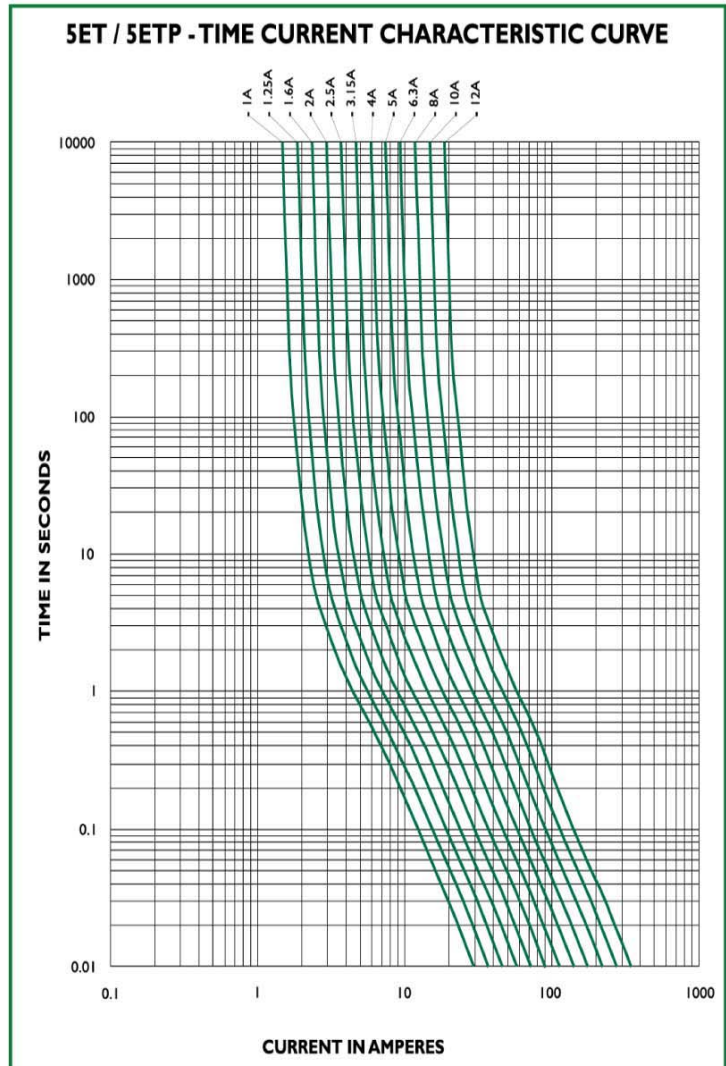


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Temperature Derating Curve



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) 100,000 ohms minimum.
Solderability	MIL-STD-202G, Method 208H
Resistance to solder Heat	MIL-STD-202G Method 210F, Test Condition B, (260+/-5 °C, 10+/-1 sec)
Thermal Shock	MIL-STD-202G, Method 107G, Test Condition B (-65 °C to +125 °C).
Operating Temperature	-55 °C to +125 °C
Terminal Strength	IEC-68-2-21



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5 x 20mm Glass Tube
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Physical Specifications

Materials	Body : Glass
	Cap : Nickel Plated Brass Caps
	Leads: Matte Tin Plated Copper
Marking	On Fuse:
	"bel" , "T" , " Current Rating", "E", "250V",
	"Appropriate Safety Logos", " ✓ " (RoHS 6 compliant)
	On label:
	"bel" , "5ET", or "5ETP", "Current Rating", "Voltage Rating", "Interrupting Rating", "Appropriate Safety Logos" and " ✓ " , " Ⓢ " (China RoHS compliant).

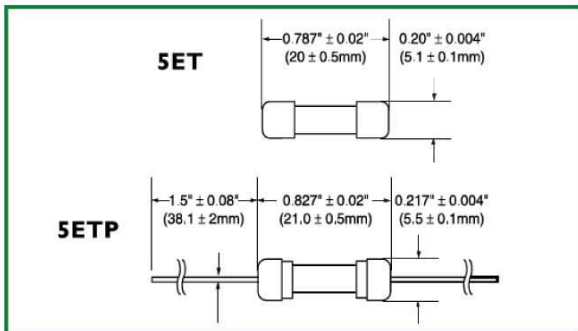
Fuse FGNO Explanation

06XX-XXXXX-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

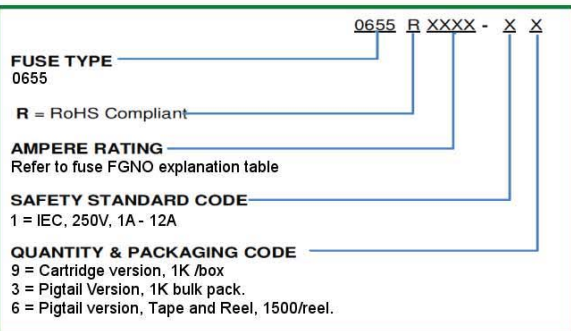
Fraction	Decimal	Amps	Bel FGNO[XXXX]
	1.0	1	1000
1-1/4	1.25	1.25	1250
1-1/2	1.50	1.5	1500
	1.60	1.6	1600
	2.0	2	2000
2-1/4	2.25	2.25	2250
2-1/2	2.5	2.5	2500
	3.0	3	3000
	3.15	3.15	3150
3-1/2	3.5	3.5	3500
	4.0	4	4000
	5.0	5	5000
	6.0	6	6000
	6.3	6.3	6300
	7.0	7	7000
7-1/2	7.5	7.5	7500
	8.0	8	8000
		10	9100
		12	9120
		15	9150
		20	9200
		25	9250
		30	9300

Mechanical Dimensions



* Ratings 6.3A and less have 0.032" diameter lead
* Ratings 8A and above have 0.040" diameter lead

Ordering Information



Specifications subject to change without notice

Packaging

Packaging Option	Packaging Specification	Quantity	Packaging Code	Inside Tape Spacing
Bulk	N/A	1000	19	N/A
Bulk (Pigtail Type)	N/A	1000	13	N/A
Tape & Reel, 10 mm Pitch	EIA-296-F	1500	16	63

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