RoHS

bel

5HT Apr2013D

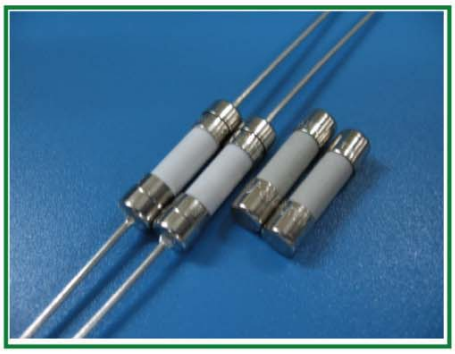
5 x 20mm Ceramic Tube

RoHS 6 Compliant

Type 5HT / 5HTP

Time-lag Fuse Series (High - Breaking Capacity)

HF Pb **5HT / 5HTP Series, 5 x 20mm Time-Lag Fuse**



Description

5x20mm Time-Lag surge withstand, high breaking capacity, ceramic body cartridge fuse designed, approved and complied with IEC 60127-2, standard sheet 5.

Features

- **High breaking capacity (250V ac @1500A)**
- **Meet IEC standard 60127-2,Sheet 5**
- **Wide operating temperature range**
- **Bulk and Tape & Reel packing available**
- **RoHS6 compliant**
- **Halogen Free**
- **Leadfree**

Electrical Characteristics (IEC-127-2 STANDARD SHEET 5)

Rated Current	1.5 *In*		2.1 *In*		2.75 *In*		4 *In*		10 *In*	
	MIN		MAX		MIN	MAX	MIN	MAX	MIN	MAX
100mA to 3.15A	1		30		1	80	95	5	10	100
4A and above	1		30		1	80	150	5	20	100
	hr.		min.		sec	sec	ms	sec	ms	ms

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

Applications

Provide individual protection for components or internal circuits.

- **Power Supplies**
- **Battery charger**
- **Monitor**
- **Adapter**

LEAD FREE = Pb

HALOGEN FREE = HF

Safety Agency Approvals

SAFETY AGENCY	SAFETY AGENCY CERTIFICATE NUMBER	AMPERE RANGE / VOLT @ I.R.ABILITY
	909875	1A - 6.3A / 250V AC @ 1,500A
	40000505	
	EM232	
	E20624	250mA - 6.3A / 600V AC @150A
		250mA - 10A / 250V AC @1500A
	LR39772	
	JET1037-31003-1008	1A - 5A / 250V AC @ 1,500A
	JET1037-31003-1009	
	JET1037-31003-1006	> 5A - 15A / 250V AC @ 1,500A
	2002010207021531	250mA - 6.3A / 250V AC @1500A

Specifications subject to change without notice

Bel Fuse Inc. 206 Van Vorst Street, Jersey City, NJ 07302 • Tel: 201-432-0463 • Fax: 201-432-9542 • E-Mail: belfuse@belf.com
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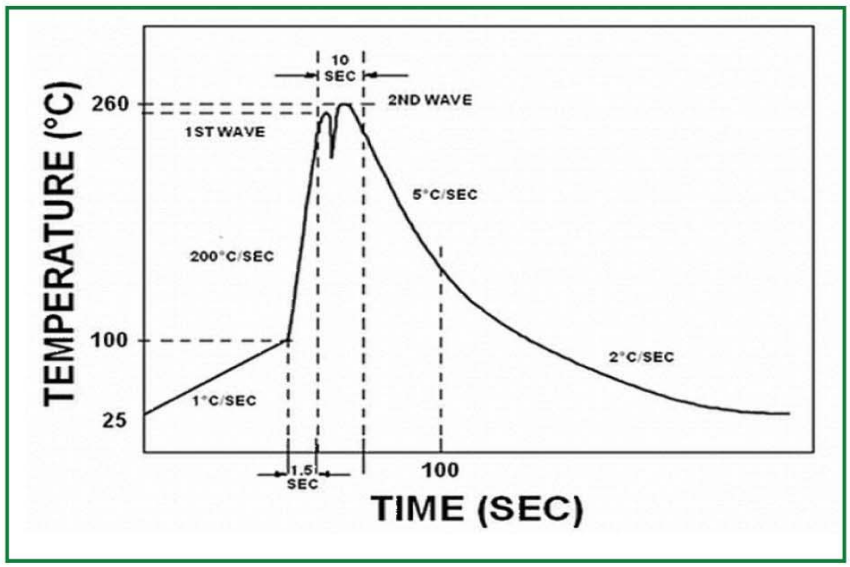
Electrical Specifications

Catalog Number	Ampere Rating	Typical Cold Resistance (ohm)	Volt-drop @100% In (Volt) Max.	Voltage Rating (V)	Interrupting Rating	Melting I2T <10 m Sec (A2 Sec)	Melting I2T @ 10 In (A2 Sec)	Maximum Power Dissipation (W)	Agency Approvals							
5HT (P) 250-R	250mA	3.41	1.16	250	1A - 6.3A / 250V AC @ 1,500A 250mA - 6.3A / 600V AC @150A	0.10	0.12	0.34	Y	Y	Y					Y
5HT (P) 315-R	315mA	2.08	0.90	250		0.18	0.22	0.38	Y	Y	Y					Y
5HT (P) 400-R	400mA	1.47	0.73	250		0.28	0.34	0.41	Y	Y	Y					Y
5HT (P) 500-R	500mA	1.03	0.66	250		0.46	0.58	0.48	Y	Y	Y					Y
5HT (P) 630-R	630mA	0.63	0.51	250		0.70	0.90	0.55	Y	Y	Y					Y
5HT (P) 800-R	800mA	0.39	0.40	250		1.1	1.5	0.64	Y	Y	Y					Y
5HT (P) 1-R	1A	0.20	0.25	250		1.7	1.7	0.73	Y	Y	Y	Y	Y	Y	Y	Y
5HT (P) 1.25-R	1.25A	0.14	0.24	250		3	3	0.81	Y	Y	Y	Y	Y	Y	Y	Y
5HT (P) 1.6-R	1.6A	0.095	0.19	250		5	6	0.91	Y	Y	Y	Y	Y	Y	Y	Y
5HT (P) 2-R	2A	0.069	0.17	250		10	11	1.00	Y	Y	Y	Y	Y	Y	Y	Y
5HT (P) 2.5-R	2.5A	0.047	0.16	250		17	20	1.10	Y	Y	Y	Y	Y	Y	Y	Y
5HT (P) 3.15-R	3.15A	0.031	0.13	250		31	38	1.20	Y	Y	Y	Y	Y	Y	Y	Y
5HT (P) 4-R	4A	0.020	0.10	250		56	69	1.40	Y	Y	Y	Y	Y	Y	Y	Y
5HT (P) 5-R	5A	0.015	0.10	250		101	128	1.50	Y	Y	Y	Y	Y	Y	Y	Y
5HT (P) 6.3-R	6.3A	0.012	0.10	250		181	237	1.70	Y	Y	Y	Y	Y	Y	Y	Y
5HT (P) 8-R	8A	0.008	0.09	250	8A - 10A / 250V AC @1500A	330	439	2.70	Y	Y					Y	Y
5HT (P) 10-R	10A	0.007	0.09	250		601	812	2.90	Y	Y					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 Tp	260°C
Time within +0 °C / -5°C of actual peak temperature	10 seconds
Ramp-down rate	5 °C / second max.



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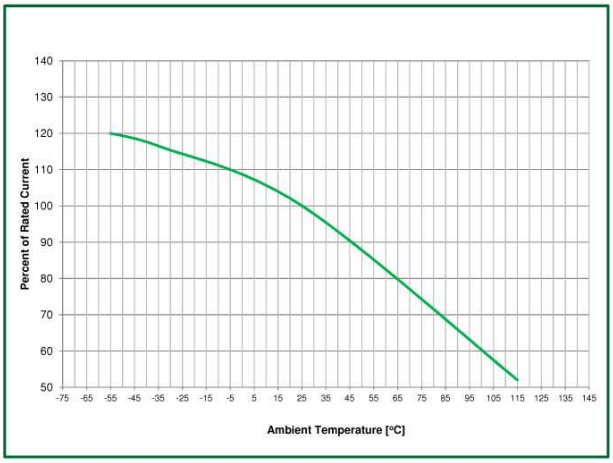
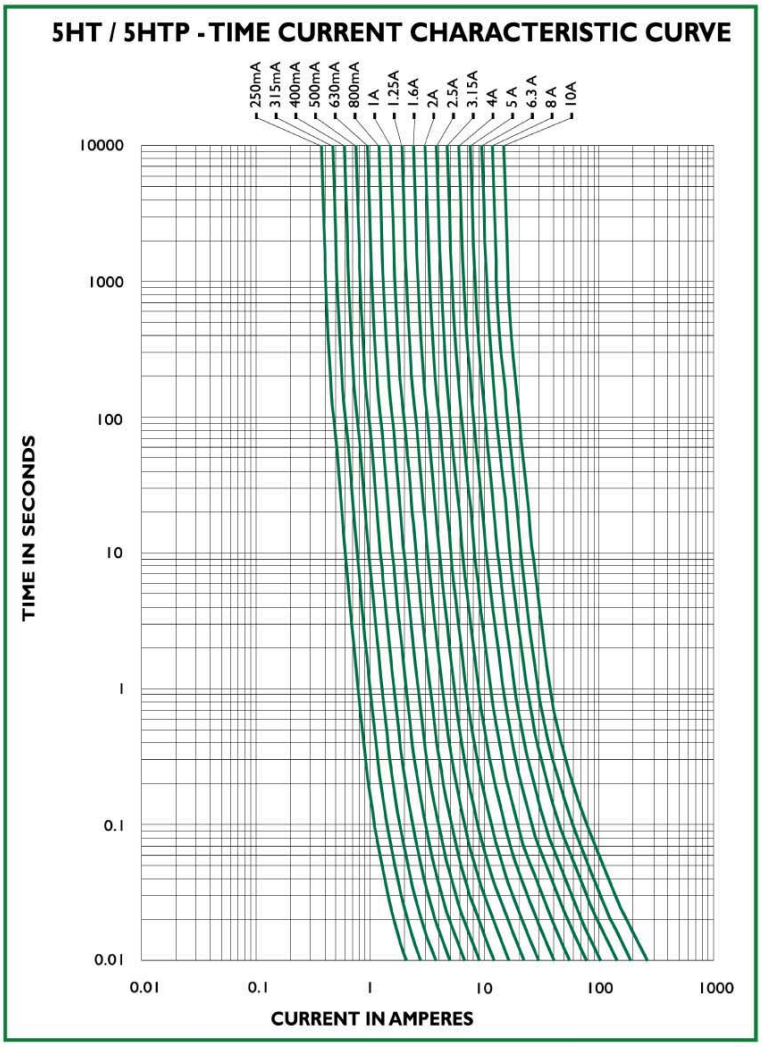
Temperature Derating Curve



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℃,10+/-1 sec)
Thermal Shock	MIL-STD-202G, Method 107G, Test Condition B (-65℃ to +125℃).
Operating Temperature	-55℃ to +125℃
Terminal Strength	IEC-68-2-21

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Physical Specifications

Materials	Body : Ceramic
	Cap : Nickel Plated Brass Caps
	Leads: Matte Tin Plated Copper
Marking	On Fuse:
	"bel" , "T" ," Current Rating","H", "250V",
	"Appropriate Safety Logos"," ✔ "(RoHS 6 compliant)
	On label:
	"bel" , "5HT", or "5HTP","Current Rating","Voltage Rating","Interrupting Rating", "Appropriate Safety Logos" and " ","(China RoHS compliant).

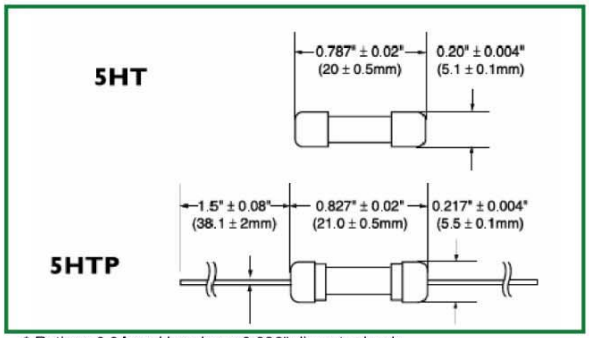
Fuse FGNO Explanation

06XX-[XXXX]-XX, [XXXX]=Ampere Rating

Fraction	Decimal	Milliamps	Bel FGNO[XXXX]
1/32	0.032	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

0659 R XXXX - X X

FUSE TYPE
0659

R = RoHS Compliant

AMPERE RATING
Refer to fuse FGNO explanation table

SAFETY STANDARD CODE
1 = IEC, 250V, 250mA - 10A

QUANTITY & PACKAGING CODE
2 = Cartridge version, 1K /box
3 = Pigtail Version, 1K bulk pack.
6 = Pigtail version, Tape and Reel, 1500/reel.

Specifications subject to change without notice

Packaging

Packaging Option	Packaging Specification	Quantity	Packaging Code	Inside Tape Spacing
Bulk	N/A	1000	12	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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