

RoHS

**bel**

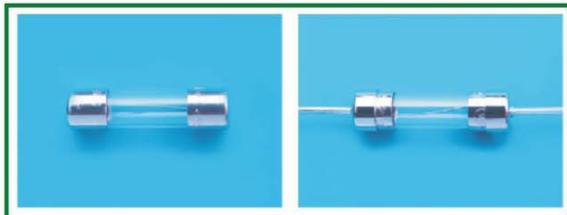
5MT Apr2013D

**Type 5MT / 5MTP**  
**Medium Blow Fuse Series**

5 x 20mm Glass Tube  
 RoHS 6 Compliant

HF **Pb** 5MT / 5MTP Series, 5 x 20mm Medium Blow Fuse

UL US **SP** **PS E** **CE**



**Description**

5x20mm Medium Blow, glass tube body cartridge fuse designed, approved and complied with UL and CSA standard 248-14.

**Features**

- Meet UL and CSA standard 248-14
- 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 = **Pb**

HALOGEN FREE = **HF**

**Electrical Characteristics (UL / CSA STD.248-14)**

Testing current	Blow Time	
	Minimum	Maximum
100%	4 Hrs.	N/A
135%	N/A	1 Hr
200%	N/A	15 Sec
1000%	10 mSec	N/A

**Safety Agency Approvals**

SAFETY AGENCY	SAFETY AGENCY CERTIFICATE NUMBER	AMPERE RANGE / VOLT @ I.R.ABILITY
<b>UL</b> US	E20624	100mA - 800mA / 250V AC @35A 1A - 3A / 250V AC @100A 100mA - 5A / 125V AC @10,000A
<b>SP</b>	LR39772	
<b>PS E</b>	JET 1037-31003-1010 JET 1037-31003-1011	1A - 5A / 125V AC @500A
	JET 1037-31003-1007	>5A - 15A / 125V AC @300A
<b>CE</b>		100mA - 800mA / 250V AC @35A 1A - 3A / 250V AC @100A 100mA - 5A / 125V AC @10,000A

Specifications subject to change without notice

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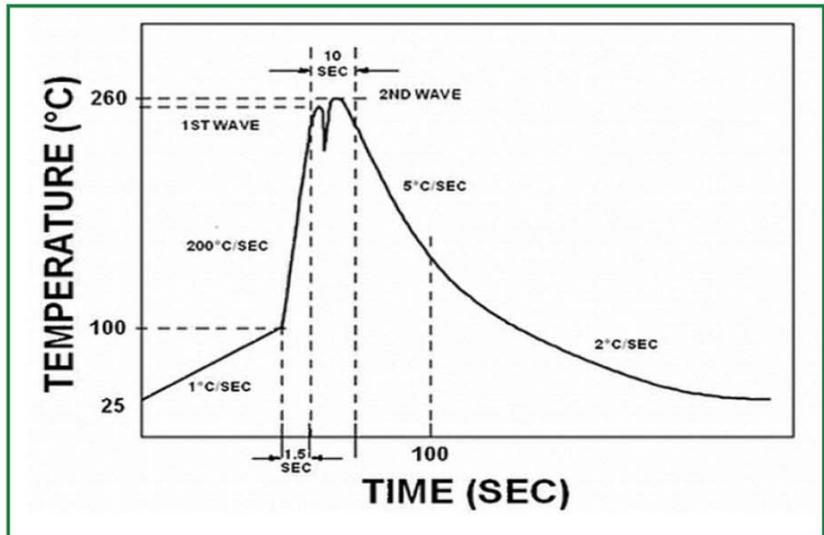
## Electrical Specifications

Catalog Number	Ampere Rating	Typical Cold Resistance (ohm)	Volt-drop @100% In (Volt) Max.	Voltage Rating (V)	Interrupting Rating	Melting I <sup>2</sup> T <10 m Sec (A <sup>2</sup> Sec)	Melting I <sup>2</sup> T @ 10 In (A <sup>2</sup> Sec)	Maximum Power Dissipation (W)	Agency Approvals			
									UL	CSA	PS E	CE
5MT (P) 100-R	100mA	11.9	2.02	250	100mA-800mA / 250V AC @35A 1A - 3A /250V AC @100A 100mA - 5A / 125V AC @10,000A	0.02	0.04	0.30	Y	Y		Y
5MT (P) 125-R	125mA	7.92	1.77	250		0.04	0.07	0.32	Y	Y		Y
5MT (P) 160-R	160mA	4.82	1.33	250		0.06	0.11	0.34	Y	Y		Y
5MT (P) 200-R	200mA	3.11	1.13	250		0.11	0.18	0.36	Y	Y		Y
5MT (P) 250-R	250mA	2.12	0.94	250		0.18	0.30	0.38	Y	Y		Y
5MT (P) 300-R	300mA	1.51	0.80	250		0.31	0.50	0.37	Y	Y		Y
5MT (P) 375-R	375mA	1.07	0.73	250		0.47	0.75	0.40	Y	Y		Y
5MT (P) 500-R	500mA	0.61	0.57	250		0.88	1.40	0.43	Y	Y		Y
5MT (P) 600-R	600mA	0.430	0.44	250		1.5	2.3	0.45	Y	Y		Y
5MT (P) 700-R	700mA	0.340	0.42	250		2.2	2.5	0.48	Y	Y		Y
5MT (P) 750-R	750mA	0.290	0.39	250		2.3	3.5	0.49	Y	Y		Y
5MT (P) 800-R	800mA	0.261	0.36	250		3.8	4.2	0.49	Y	Y		Y
5MT (P) 1-R	1A	0.183	0.33	250		4.2	6.4	0.49	Y	Y	Y	Y
5MT (P) 1.25-R	1.25A	0.124	0.28	250		7.2	11	0.52	Y	Y	Y	Y
5MT (P) 1.6-R	1.6A	0.081	0.23	250		12	18	0.55	Y	Y	Y	Y
5MT (P) 2-R	2A	0.061	0.22	250		20	29	0.59	Y	Y	Y	Y
5MT (P) 2.5-R	2.5A	0.043	0.19	250		35	49	0.65	Y	Y	Y	Y
5MT (P) 3-R	3A	0.036	0.19	250		58	82	0.74	Y	Y	Y	Y
5MT (P) 3.5-R	3.5A	0.029	0.18	250		76	105	0.84	Y	Y	Y	Y
5MT (P) 4-R	4A	0.025	0.18	250		99	136	0.91	Y	Y	Y	Y
5MT (P) 5-R	5A	0.019	0.17	250	167	226	1.10	Y	Y	Y	Y	
5MT (P) 6-R	6A	0.014	0.16	250	6A-7A/125V AC @300A	315	428	1.30			Y	Y
5MT (P) 7-R	7A	0.012	0.15	250		750	1059	2.10			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 <sub>p</sub>	260°C
Time within +0°C / -5°C of actual peak temperature	10 seconds
Ramp-down rate	5°C / second max.



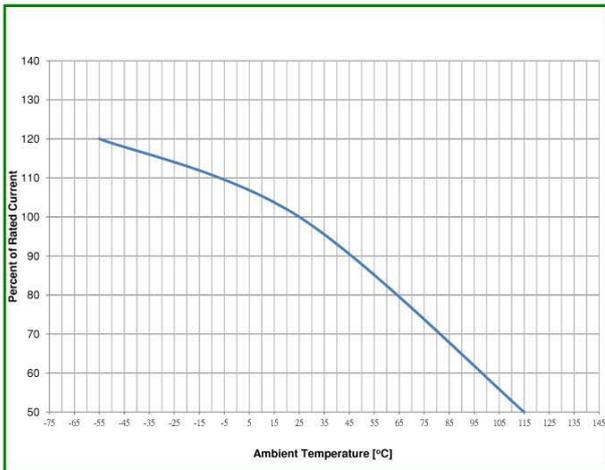
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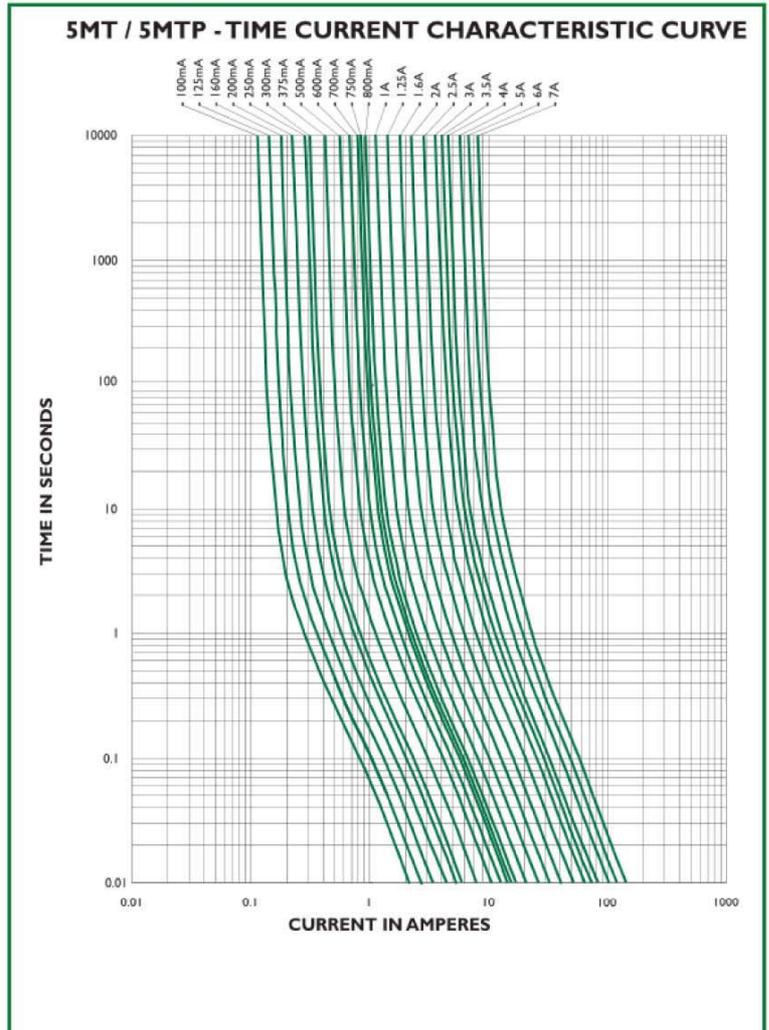


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**Temperature Derating Curve**



**Average Time Current Curve**



**Environmental Specifications**

<b>Shock Resistance</b>	MIL-STD-202G, Method 213B, Test Condition I (100 G's peak for 6 milliseconds; Sawtooth Waveform)
<b>Vibration Resistance</b>	MIL-STD-202G, Method 201A (10-55 Hz, 0.06 inch, total excursion).
<b>Salt Spray Resistance</b>	MIL-STD-202G, Method 101E, Test condition B (48 hrs).
<b>Insulation Resistance</b>	MIL-STD-202G, Method 302, Test Condition A (After Opening) 10,000 ohms minimum.
<b>Solderability</b>	MIL-STD-202G, Method 208H
<b>Resistance to solder Heat</b>	MIL-STD-202G Method 210F, Test Condition B. (260+/-5°C, 10+/- 1 sec)
<b>Thermal Shock</b>	MIL-STD-202G, Method 107G, Test Condition B (-65°C to +125°C).
<b>Operating Temperature</b>	-55°C to +125°C
<b>Terminal Strength</b>	IEC-68-2-21

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## Physical Specifications

<b>Materials</b>	Body : Glass
	Cap : Nickel Plated Brass Caps
	Leads: Matte Tin Plated Copper
<b>Marking</b>	On Fuse:
	"bel", "5MT", "Current Rating", "Voltage Rating",
	"Appropriate Safety Logos", "✓" (RoHS 6 compliant)
	On label:
	"bel", "5MT", or "5MTP", "Current Rating", "Voltage Rating", "Interrupting Rating", "Appropriate Safety Logos" and "M", "e" (China RoHS compliant).

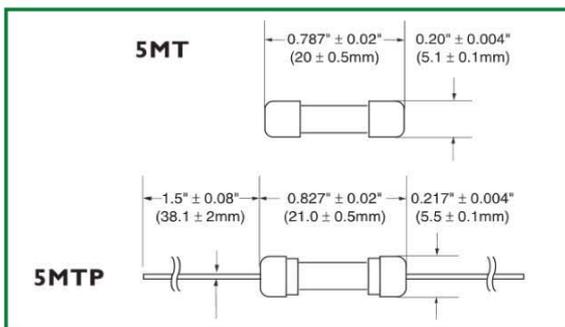
## Fuse FGNO Explanation

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

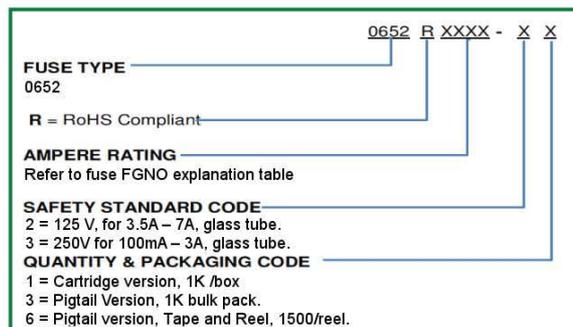
Fraction	Decimal	Milliamps	Bel FGNO[XXXX]
1/32	0.032	32	0032
1/25	.040	40	0040
1/20	.050	50	0050
1/16	.063	63	0063
8/100	.080	80	0080
1/10	.100	100	0100
1/8	.125	125	0125
15/100	.150	150	0150
	.160	160	0160
2/10	.200	200	0200
1/4	.250	250	0250
3/10	.300	300	0300
	.315	315	0315
3/8	.375	375	0375
4/10	.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



## Ordering Information



\* Ratings 5A and less have 0.032" diameter lead;  
Ratings 6A and above have 0.040" diameter lead.

Specifications subject to change without notice

## Packaging

Packaging Option	Packaging Specification	Quantity	Packaging Code	Inside Tape Spacing
Bulk	N/A	1000	33 / 21	N/A
Bulk (Pigtail Type)	N/A	1000	33 / 23	N/A
Tape & Reel, 10 mm Pitch	EIA-296-F	1500	36 / 26	63

## CORPORATE OFFICE

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