

80mA-160mA EOL – Last Buy Date is Jun 30, 2020
No replacements for these ratings

Type 5TT / 5TTP Slow Blow Fuse Series

HF **Pb** 5TT/5TTP Series, 5x20mm Glass/Ceramic Tube Slow Blow Fuse RoHS 2 Compliant

Description

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

Features

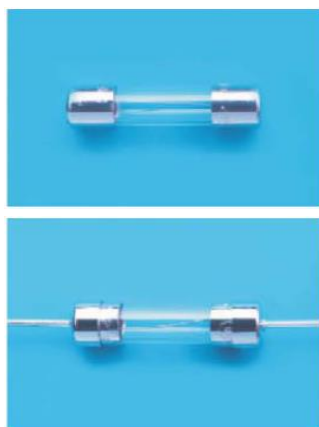
- Meet UL and CSA standard 248-14
- Wide operating temperature range
- Bulk and Tape & Reel packing available
- RoHS 2 compliant
- Halogen Free
- Lead Free

Applications

Provide individual protection for components or internal circuits.

- Power supplies
- Battery charger
- Monitor
- Adapter

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



Physical Specifications

Materials	Body : Glass or Ceramic (see info below)
	Cap : Nickel Plated Brass Caps
	Leads : Matte Tin Plated Copper
Marking	On Fuse :
	"bel", "5TT", "Current Rating", "Voltage Rating",
	"Appropriate Safety Logos", "✓" (RoHS 2 compliant)
	On Label :
	"bel", "5TT" or "5TTP", "Current Rating", "Voltage Rating", "Interrupting Rating", "Appropriate Safety Logos" and "✓", "e" (China RoHS compliant).

Electrical Characteristics (UL/CSA STD,248-14)

Testing Current	Blow Time		Amp Range
	Minimum	Maximum	
100%	4 hrs.	N/A	80mA-10A
135%	N/A	1 Hr.	80mA-10A
200%	5 sec	30 sec	80mA-3A
	3 sec	30 sec	3.1A-10A

Safety Agency Approvals

Safety Agency	Safety Agency Certificate	Voltage Rating (V)	Ampere Range / Volt @ I.R. ability*
UL	E20624	80mA-3A/250V AC 3.15A-10A/125V AC	80mA-3A/250V AC@100A 80mA-8A/125V AC@10,000A
SP	LR39772		
UL	E20624		10A/125V AC@1,000A
SP	LR39772		1A-5A/125V AC@500A
PS	JET1037-31003-1010 JET1037-31003-1011 JET1037-31003-1007		>5A-15A/125V AC@300A

*I.R.= Interrupting Rating = Short Circuit Rating(Amps)

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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 A (After Opening) 10,000 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

Electrical Specifications

Catalog Number	Ampere Rating	Typical Cold Resistance (ohms)	Volt-drop @100%In (Volt) max.	Voltage and Interrupting Ratings	Melting I²T <10 mSec (A² Sec)	Melting I²T @10 In (A² Sec)	Maximum Power Dissipation (W)	Agency Approvals				
								UL	UL	SP	SP	PS
5TT(P) 80-R	80mA	29	3.10	See Table of Safety Approvals on Page 1 for Voltage and associated Interrupting Ratings	0.091	0.096	0.42	Y			Y	
5TT(P) 100-R	100mA	18.8	2.52		0.137	0.146	0.45	Y			Y	
5TT(P) 125-R	125mA	12.6	2.22		0.208	0.221	0.48	Y			Y	
5TT(P) 160-R	160mA	7.6	1.88		0.314	0.337	0.51	Y			Y	
5TT(P) 200-R	200mA	4.98	1.45	See Table of Safety Approvals on Page 1 for Voltage and associated Interrupting Ratings	0.476	0.512	0.55	Y			Y	
5TT(P) 250-R	250mA	3.39	1.25		0.719	0.778	0.58	Y			Y	
5TT(P) 300-R	300mA	2.13	0.97		0.885	0.959	0.60	Y			Y	
5TT(P) 400-R	400mA	1.33	0.83		1.65	1.80	0.66	Y			Y	
5TT(P) 500-R	500mA	0.865	0.67		2.5	2.7	0.70	Y			Y	
5TT(P) 600-R	600mA	0.679	0.64		3.8	4.2	0.75	Y			Y	
5TT(P) 700-R	700mA	0.465	0.49		4.6	5.1	0.78	Y			Y	
5TT(P) 750-R	750mA	0.438	0.48		5.3	5.8	0.79	Y			Y	
5TT(P) 1-R	1A	0.258	0.40		8.6	9.6	0.85	Y			Y	Y
5TT(P) 1.25-R	1.25A	0.179	0.34		13	15	0.91	Y			Y	Y
5TT(P) 1.5-R	1.5A	0.126	0.30		18	21	0.96	Y			Y	Y
5TT(P) 1.6-R	1.6A	0.116	0.30		20	22	0.97	Y			Y	Y
5TT(P) 2-R	2A	0.081	0.27		30	34	1.03	Y			Y	Y
5TT(P) 2.5-R	2.5A	0.056	0.23		45	51	1.10	Y			Y	Y
5TT(P) 3-R	3A	0.043	0.21		56	63	1.13	Y			Y	Y
5TT(P) 3.15-R	3.15A	0.040	0.21		68	78	1.17				Y	Y
5TT(P) 4-R	4A	0.029	0.19		103	119	1.25				Y	Y
5TT(P) 5-R	5A	0.020	0.17		157	180	1.33				Y	Y
5TT(P) 6-R	6A	0.015	0.15		218	317	1.23				Y	Y
5TT(P) 6.3-R	6.3A	0.014	0.12		230	345	1.25				Y	Y
5TT(P) 7-R	7A	0.012	0.13		295	459	1.37				Y	Y
5TT(P) 8-R	8A	0.011	0.13		319	472	1.31				Y	Y
5TT(P) 10-R	10A	0.008	0.13		467	703	1.40		Y	Y		Y

Consult manufacturer for other ratings

EOL—
Last Buy Date is
Jun 30, 2020



Bel Fuse Inc.
206 Van Vorst Street
Jersey City, NJ 07302 USA

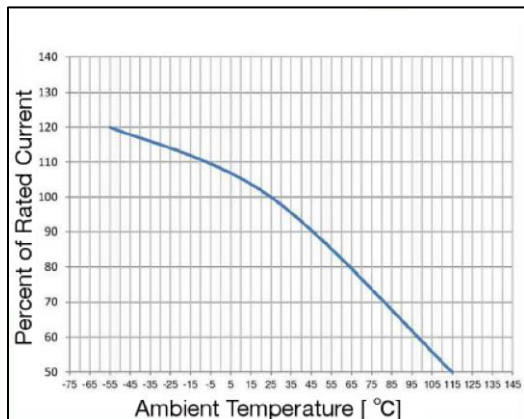
Specifications subject to change without notice
+1 201.432.0463
Bel.US.CS@belf.com

belfuse.com/circuit-protection

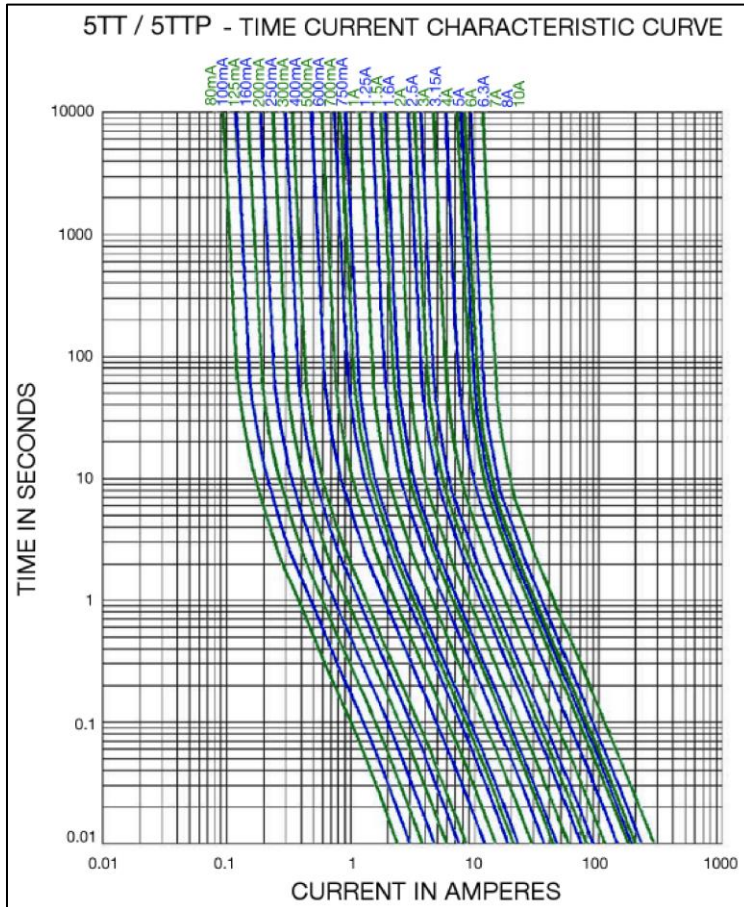
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Temperature Derating Curve

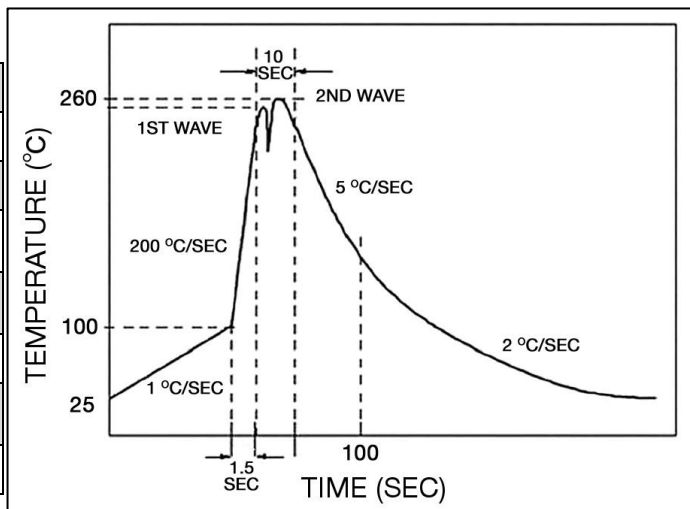


Average Time Current Curve



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.



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Fuse FGNO Explanation

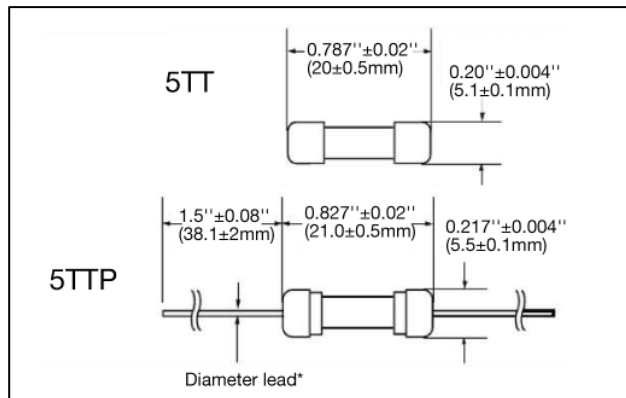
0654 R [XXXX] -XX

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

Fraction	Decimal	Milliamps	Bel FGNO[XXXX]
8/100	0.080	80	0080
1/10	.100	100	0100
1/8	.125	125	0125
	.160	160	0160
2/10	.200	200	0200
1/4	.250	250	0250
3/10	.300	300	0300
4/10	.400	400	0400
1/2	.500	500	0500
6/10	.600	600	0600
7/10	.700	700	0700
3/4	.750	750	0750

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
2-1/2	2.5	2.5	2500
	3.0	3	3000
	3.15	3.15	3150
	4.0	4	4000
	5.0	5	5000
	6.0	6	6000
	6.3	6.3	6300
	7.0	7	7000
	8.0	8	8000
		10	9100

Mechanical Dimensions



*Ratings 5A and less have 0.032" ± 0.002" diameter lead;
*Ratings 6A and above have 0.039" ± 0.002" diameter lead.

Ordering Information

0654 R XXXX - X X

FUSE TYPE
0654RXXX-XX = 5TT/5TTP Series [X>1]

R = RoHS Compliant

AMPERE RATING
Refer to fuse FGNO explanation table

VOLTAGE / MECHANICAL / SAFETY AGENCY
2 = 125V for > 3A - 10A
3 = 250V for 80mA - 3A
5 = Ceramic tube for 6A and above

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

Packaging

Packaging Option	Packaging Specification	Quantity	Packaging Code	Inside Tape Spacing
Bulk	N/A	1000	33 / 21 / 51	N/A
Bulk (Pigtail Type)	N/A	1000	33 / 23 / 53	N/A
Tape & Reel	EIA-296-F	1500	36 / 26 / 56	10mm Pitch and 63mm

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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