

# Type RST

## Time Lag Radial Lead Micro Fuse Series

HF  RST Series

RoHS 2 Compliant

### Description

Sub-miniature, time lag type, 250V rated fuses designed, approved and complied with IEC 60127-3, standard sheet 4.

### Features

- Time lag (250V AC)
- Meet IEC standard 60127-3, sheet 4
- 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 chargers
- Consumer electronics
- Adapter
- Industrial controllers

LEAD FREE =   
HALOGEN FREE = 



### Physical Specifications

Materials	Base and Cover : Black thermoplastic, UL 94-V0
	Pins : 100% Matte Tin Plated Copper
Marking	On Fuse :
	"bel", "T", "Current Rating", "250V" & "Appropriate Safety Logos"
	On Label :
	"bel", "RST", "Current Rating", "Voltage Rating", "Interrupting Rating", "Appropriate Safety Logos" and "  ", "  "(China RoHS compliant).

### Electrical Characteristics (IEC-127-3 STANDARD SHEET 4)

Rated Current	1.5In		2.1In		2.75In		4In		10In	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
80mA to 6.3A inclusive	1	2	400	10	150	3	20	150		
	hour	min.	ms	sec	ms	sec	ms	ms		

In clause 9.2, the test voltage for RST ratings from 80mA to 6.3A is 63VDC.

### Safety Agency Approvals

Safety Agency	Safety Agency Certificate	Voltage Rating (V)	Ampere Range / Volt @ I.R. ability*
	1808557	80mA-6.3A/ 250V AC	80mA-5A/250V AC @ 35A or 10 In whichever is greater.
	40011144 40028321		80mA-6.3A/250V AC @ 35A or 10 In whichever is greater.
	E20624		80mA-6.3A/277V AC @ 100A
	JET 1037-31007-1001		1A-5A 250V AC @ 100A
	2004010207111444		80mA-5A/250V AC @ 35A or 10 In whichever is greater.

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

## 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 X 3 axis / no load).
Salt Spray Resistance	MIL-STD-202G, Method 101E, Test Condition B (48 hrs.).
Solderability	MIL-STD-202G, Method 208H
Resistance to solder Heat	MIL-STD-202G, Method 210F, Test Condition C. Top Side. (260°C,20 sec)
Moisture Resistance	MIL-STD-202G, Method 202G, Method 106G
Operating Temperature	-55°C to +125°C

## Electrical Specifications

Catalog Number	Ampere Rating	Typical Cold Resistance (ohms)	Volt-drop @100% In (Volt) max.	Voltage and Interrupting Ratings	Melting I <sup>2</sup> T <10 mSec (A <sup>2</sup> Sec)	Melting I <sup>2</sup> T @10 In (A <sup>2</sup> Sec)	Maximum Power Dissipation (W)	Agency Approvals				
												
RST 80	80mA	3.5	0.398	See Table of Safety Approvals on Page 1 for Voltage and associated Interrupting Ratings	0.01	0.01	0.10	Y	Y	Y		Y
RST 100	100mA	2.3	0.329		0.02	0.02	0.11	Y	Y	Y		Y
RST 125	125mA	1.6	0.295		0.04	0.04	0.13	Y	Y	Y		Y
RST 160	160mA	1.1	0.252		0.07	0.06	0.15	Y	Y	Y		Y
RST 200	200mA	0.73	0.200		0.12	0.11	0.17	Y	Y	Y		Y
RST 250	250mA	0.55	0.188		0.38	0.41	0.19	Y	Y	Y		Y
RST 315	315mA	0.36	0.152		0.60	0.66	0.22	Y	Y	Y		Y
RST 400	400mA	0.25	0.129		0.9	1.0	0.25	Y	Y	Y		Y
RST 500	500mA	0.18	0.114		1.5	1.7	0.29	Y	Y	Y		Y
RST 630	630mA	0.13	0.109		2.4	2.6	0.33	Y	Y	Y		Y
RST 800	800mA	0.095	0.103		3.7	4.2	0.38	Y	Y	Y		Y
RST 1	1A	0.070	0.090		6	7	0.44	Y	Y	Y	Y	Y
RST 1.25	1.25A	0.053	0.087		9	11	0.51	Y	Y	Y	Y	Y
RST 1.6	1.6A	0.038	0.085		15	17	0.58	Y	Y	Y	Y	Y
RST 2	2A	0.029	0.084		23	27	0.67	Y	Y	Y	Y	Y
RST 2.5	2.5A	0.022	0.084		37	43	0.77	Y	Y	Y	Y	Y
RST 3.15	3.15A	0.017	0.074		58	69	0.88	Y	Y	Y	Y	Y
RST 4	4A	0.013	0.073		92	110	1.02	Y	Y	Y	Y	Y
RST 5	5A	0.010	0.073		145	175	1.17	Y	Y	Y	Y	Y
RST 6.3	6.3A	0.008	0.072		230	281	1.34	Y		Y		

Consult manufacturer for other ratings



Specifications subject to change without notice

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

+1 201.432.0463  
Bel.US.CS@belf.com  
[belfuse.com/circuit-protection](http://belfuse.com/circuit-protection)

## 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 <sub>p</sub>	260°C
Time within +0°C / -5°C of actual peak temperature	10 seconds
Ramp-down rate	5°C / second max.



## Fuse FGNO Explanation

0697 - [XXXX] X XX

0697=RST; [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
	.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



## Packaging

Packaging Option	Packaging Specification	Quantity	Packaging Code
Bulk / bag, 1000 / box	N/A	1000	01 , 05
12.7 mm pitch, On Tape / box	IEC-286-2	1000	02