Type 0697W

Time Lag Radial Lead Micro Fuse Series

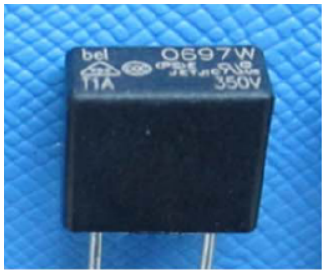
HF Pb 0697W Series — RoHS 2 Compliant

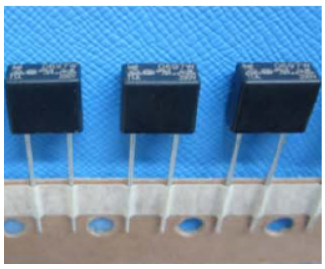
Description

Sub-miniature, time lag type, 350VAC, 72VDC rated fuses designed, approved and complied with IEC 60127-3, standard sheet 4.

Features

- Time lag (350 VAC, 72 VDC)
- Meet IEC standard 60127-3, sheet 4
- Wide operating temperature range
- Bulk and Tape & Reel packing available
- AEC-Q Compliant
- RoHS 2 compliant
- Halogen Free and Lead Free
- Meets Bel automotive qualification*
  * - Largely based on internal AEC-Q test plan





AEC-Q Compliant

Applications

Provide individual protection for components or internal circuits.
- Power supplies
- Battery chargers
- Consumer electronics
- Adapter
- Industrial controllers

LEAD FREE = Pb
HALOGEN FREE = HF

Physical Specifications

Materials	Base and Cover : Black thermoplastic, UL 94-V0
	Pins : 100% Matte Tin Plated Copper
Marking	On Fuse :
	"bel", "0697W", "Current Rating", "350V" & "Appropriate Safety Logos"
	On Label :
	"bel", "0697W", "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
1A to 6.3A inclusive	1		2	400	10	150	3	20	150
	hour		min.	ms	sec	ms	sec	ms	ms

Safety Agency Approvals

Safety Agency	Safety Agency Certificate	Voltage Rating (V)	Ampere Range / Volt @ I.R. ability*
VDE	40039412	1A-6.3A/350Vac 72Vdc	1A-1.6A/350V ac @ 50A 2A-6.3A/350V ac @ 65A 1A-6.3A/250V ac @ 65A 1A-6.3A/72V dc @ 100A
cqc PS E	PSE14020757 PSE14020758		1A-2A/350V ac @ 50A 2.5A-6.3A/350V ac @ 100A 1A-6.3A/72V dc @ 100A
c UL us	E20624		1A-2A/350V ac @65A 2.5A-6.3A/350V ac @ 100A 1A-1.6A/72V dc @ 65A 2A-6.3A/72V dc @ 100A
cqc	CQC140121053677		1A-2A/350V ac @ 50A 2.5A-6.3A/350V ac @ 100A 1A-6.3A/72V dc @ 100A

*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℃,20 sec)
Moisture Resistance	MIL-STD-202G, Method 202G, Method 106G
Operating Temperature	-55℃ to +125℃

High temperature storage	MIL-STD-202 Method 108
Temperature cycling	JESD22 Method JA-104,Test Condition B
Biased humidity	MIL-STD-202 Method 103, 85C/85% RH with 10% operating power for 1000 hrs.
Operational life	MIL-STD-202 Method 108, Test Condition D
Resistance to solvents	MIL-STD-202 Method 215
Mechanical shock	MIL-STD-202 Method 213,Test Condition C
Vibration	MIL-STD-202 Method 204
Resistance to soldering heat	MIL-STD-202 Method 210,Test condition B
Thermal shock	MIL-STD-202 Method 107
Solderability	J-STD-002
Board flex(SMD)	AEC-Q200-005
Terminal strength	AEC-Q200-006
Electrical characterization	3 temperature electrical

Electrical Specifications

Part 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			
0697W1000-XX	1A	0.082	0.115	See Table of Safety Approvals on Page 1 for Voltage and associated Interrupting Ratings	6.6	9.2	0.44	Y	Y	Y	Y
0697W1250-XX	1.25A	0.064	0.110		10.5	12.0	0.56	Y	Y	Y	Y
0697W1600-XX	1.6A	0.044	0.100		16	18	0.60	Y	Y	Y	Y
0697W2000-XX	2A	0.032	0.090		26	30	0.63	Y	Y	Y	Y
0697W2500-XX	2.5A	0.025	0.087		45	51	0.70	Y	Y	Y	Y
0697W3150-XX	3.15A	0.018	0.083		66	75	0.88	Y	Y	Y	Y
0697W4000-XX	4A	0.014	0.080		101	118	0.92	Y	Y	Y	Y
0697W5000-XX	5A	0.009	0.075		111	117	0.70	Y	Y	Y	Y
0697W6300-XX	6.3A	0.007	0.075		104	115	0.98	Y	Y	Y	Y

Consult manufacturer for other ratings

XX - Packaging code (see “ordering information”)

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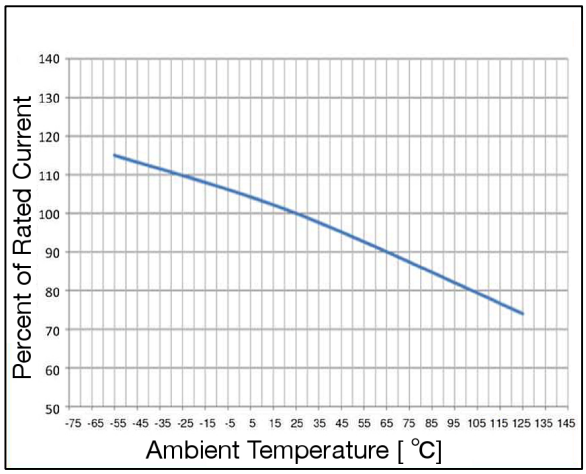
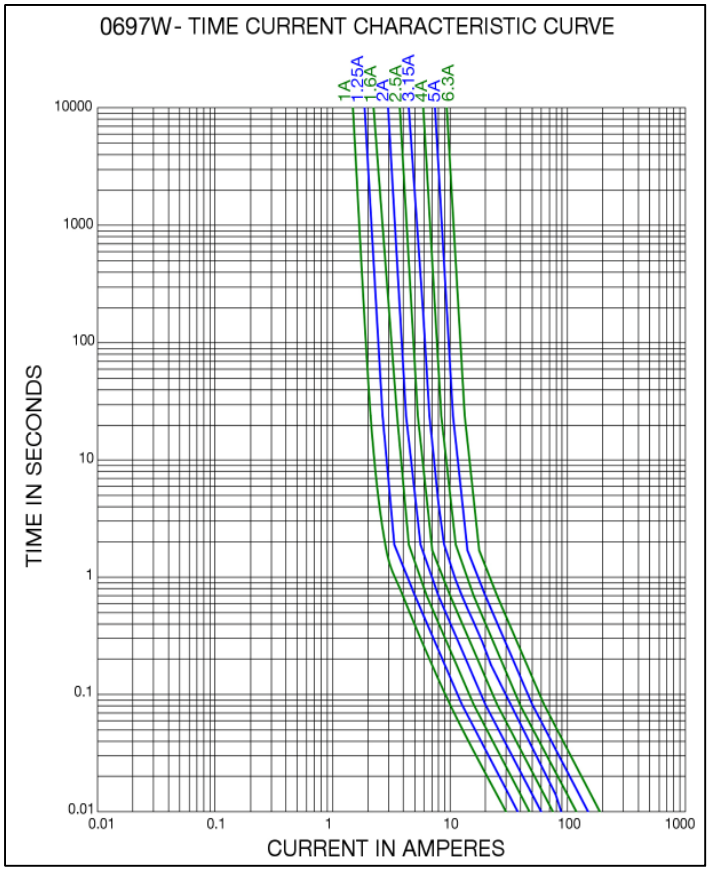
Temperature Derating Curve

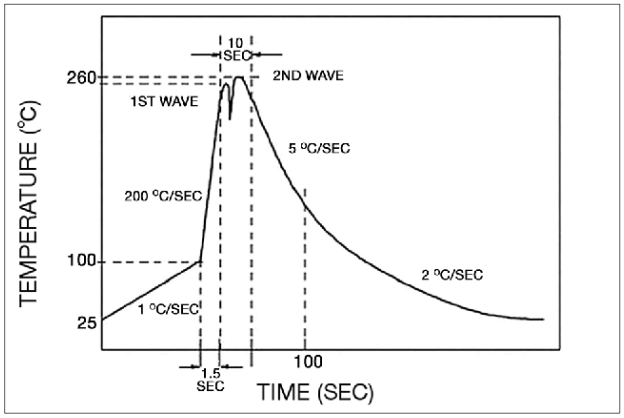


Average Time Current Curve



Soldering Parameters

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



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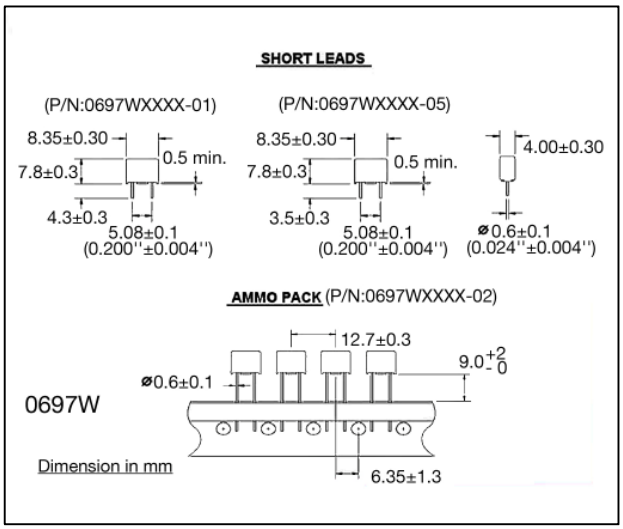
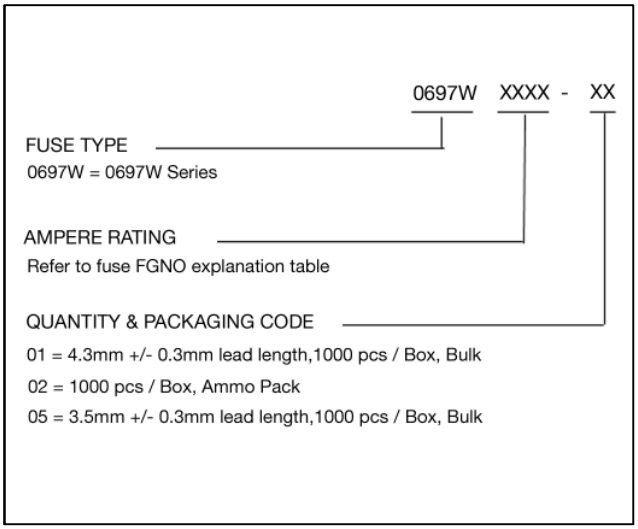
Fuse FGNO Explanation
0697 W [XXXX] X XX
0697W=0697W; [XXXX]=Ampere Rating; XX=See Ordering Information as below

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

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