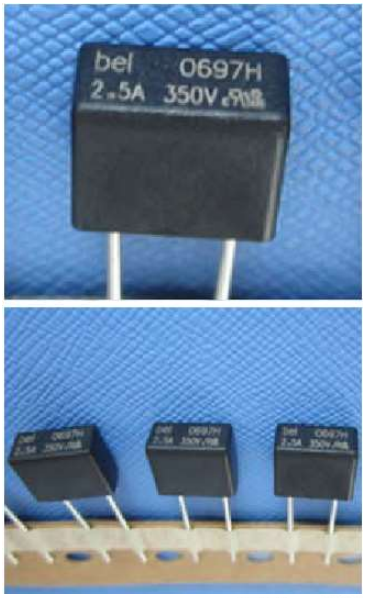
Type 0697H
Slow Blow Lead Micro Fuse Series

HF Pb 0697H Series — RoHS Compliant



UK CA TÜV c UL us CE

AEC-Q Compliant

Description

Subminiature, radial lead, High I^2t, time-lag design, rated 350VAC, 72 DC, up to 20A, Approved and complied with UL 248-14.

Features

- High I^2t, High amp ratings to 20A
- Time lag (350 VAC, 72 VDC)
- Meet UL 248-14
- Wide operating temperature range
- Bulk and Tape & Reel packing available
- AEC-Q Compliant
- Full compliance with EU Directive 2011/65/EU and amending directive 2015/863
- Halogen Free and Lead Free
- Meets Bel automotive qualification*
- Largely based on internal AEC-Q test plan

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","0697H","Current Rating", "350V" & "c UL us "
	On Label :
	"bel", "0697H", "Current Rating", "Voltage Rating", "Interrupting Rating", " c UL us" and " RoHS ", " e3 "(China RoHS compliant).

Electrical Characteristics (UL 248-14)

Testing Current	Blow Time	
	Minimum	Maximum
100%	4 Hrs.	N/A
200%	N/A	60 Sec.

Safety Agency Approvals

Safety Agency	Safety Agency Certificate	Ampere Rating/ Voltage Rating	Ampere Range / Volt @ I.R. ability*
c UL us	E506667	250mA-3A/350V AC 100V DC	250mA-3A/350V AC @100A 277V AC @150A 100V DC @ 65A 72V DC @ 200A
		3.15A-20A/350V AC 72V DC	3.15A-20A/350V AC @150A 72V DC @200A
TÜV	R 50404484 IEC 60127-1: 2006+A1+A2 IEC 60127-7: 2016	315mA , 10A /350V AC 20A /250V AC 315mA ,10A ,20A/72V DC	315mA , 10A /350V AC @150A 20A /250V AC @100A 315mA, 10A, 20A/72V DC @ 200A

*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	Nominal Melting I²T <10 mSec (A² Sec)	Nominal Melting I²T @10 In (A² Sec)	Maximum Power Dissipation (W)	Agency Approvals	
								cULus	TÜV
0697H0250-0X	250mA	0.810	0.280	See Table of Safety Approvals on Page 1 for Voltage and associated Interrupting Ratings	0.17	0.28	0.070	Y	
0697H0315-0X	315mA	0.550	0.260		0.25	0.36	0.082	Y	Y
0697H0400-0X	400mA	0.360	0.220		0.52	0.85	0.088	Y	
0697H0500-0X	500mA	0.260	0.200		1.0	1.3	0.10	Y	
0697H0630-0X	630mA	0.190	0.170		1.4	2.0	0.11	Y	
0697H0800-0X	800mA	0.130	0.150		2.3	3.1	0.12	Y	
0697H1000-0X	1A	0.085	0.130		5.9	7.3	0.13	Y	
0697H1250-0X	1.25A	0.070	0.120		9	10	0.15	Y	
0697H1600-0X	1.6A	0.050	0.100		12	14	0.16	Y	
0697H2000-0X	2A	0.036	0.090		23	27	0.18	Y	
0697H2500-0X	2.5A	0.027	0.090		38	43	0.23	Y	
0697H3000-0X	3A	0.022	0.090		55	63	0.27	Y	
0697H3150-0X	3.15A	0.021	0.090		55	63	0.28	Y	
0697H4000-0X	4A	0.016	0.080		81	92	0.32	Y	
0697H5000-0X	5A	0.013	0.080		122	133	0.40	Y	
0697H6300-0X	6.3A	0.010	0.080		169	187	0.50	Y	
0697H8000-0X	8A	0.007	0.080		273	303	0.64	Y	
0697H9100-0X	10A	0.0055	0.080		398	458	0.80	Y	
0697H9100-12								Y	Y
0697H9120-0X	12A	0.0047	0.090		303	457	1.08	Y	
0697H9150-0X	15A	0.0035	0.090		382	464	1.35	Y	
0697H9160-0X	16A	0.0033	0.090		545	627	1.44	Y	
0697H9200-0X	20A	0.0026	0.090		937	1048	1.80	Y	
0697H9200-12								Y	Y

Consult manufacturer for other ratings
XX - Packaging code (see “ordering information”)

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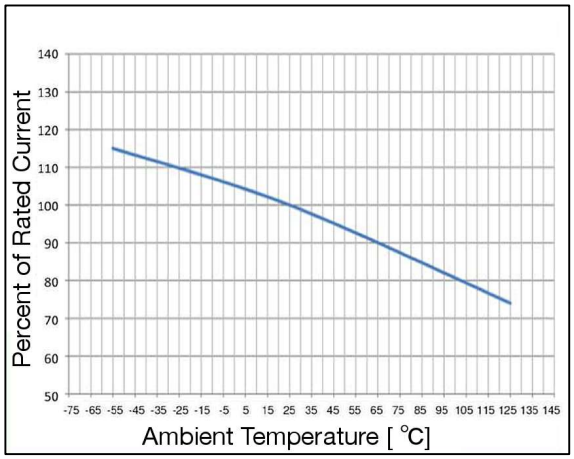
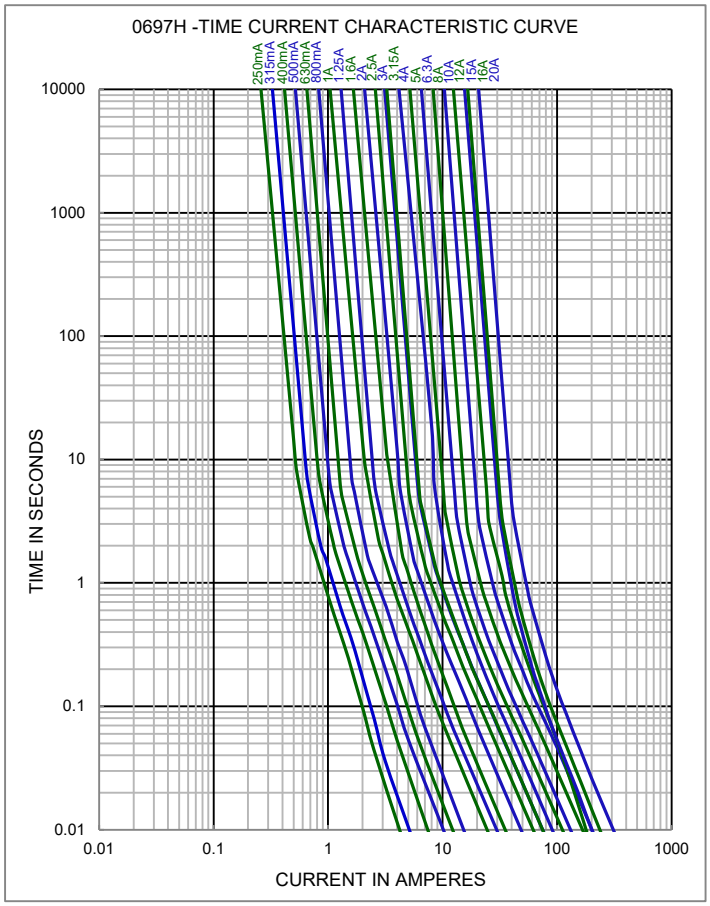
Temperature Derating Curve

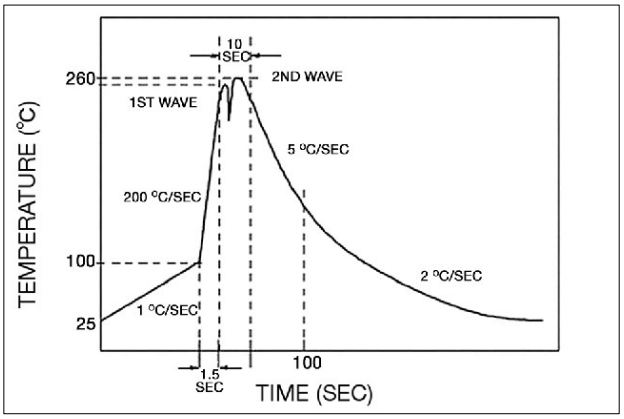


Average Time Current Curve



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.

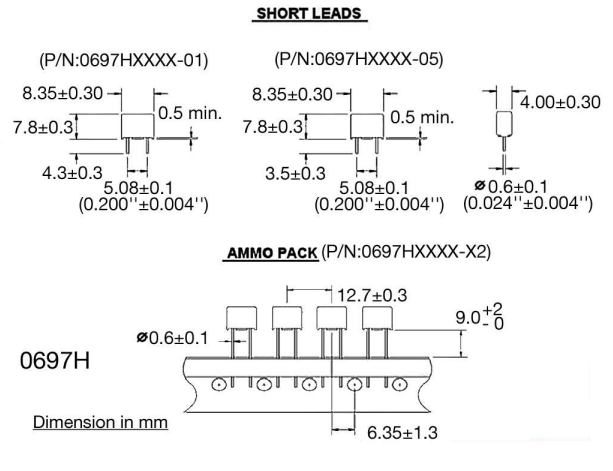


Fuse FGNO Explanation
0697 H [XXXX] X XX
0697H=0697H; [XXXX]=Ampere Rating; XX=See Ordering Information as below

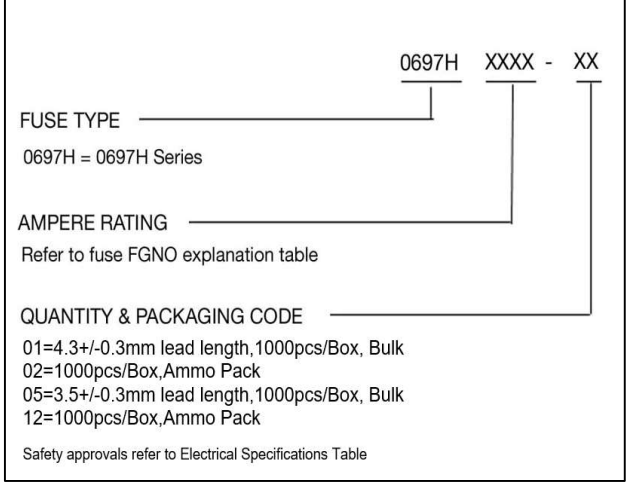
Fraction	Decimal	Milliamps	Bel FGNO[XXXX]
1/4	0.250	250	0250
	.315	315	0315
4/10	.400	400	0400
1/2	.500	500	0500
	.630	630	0630
8/10	.800	800	0800

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
	3.0	3	3000
	3.15	3.15	3150
	4.0	4	4000
	5.0	5	5000
	6.3	6.3	6300
	8.0	8	8000
		10	9100
		12	9120
		15	9150
		16	9160
		20	9200

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 , 12

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