Type 0697H
Slow Blow Lead Micro Fuse Series

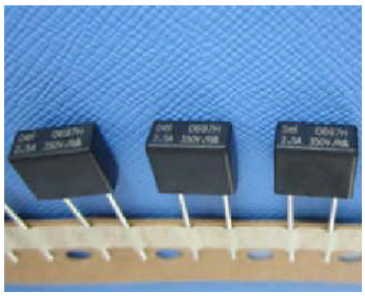
HF Pb 0697H Series — RoHS 2 Compliant

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
- RoHS 2 compliant
- Halogen Free and Lead Free
- Meets Bel automotive qualification*
  * - Largely based on internal AEC-Q test plan



TÜV c UL us CE

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","0697H","Current Rating", "350V" & "c UL us "
	On Label :
	"bel", "0697H", "Current Rating", "Voltage Rating", "Interrupting Rating", " c UL us" and " ", " "(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	Voltage Rating (V)	Ampere Range / Volt @ I.R. ability*
c UL us	E20624	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	10A/350V ac 20A/250V ac 10A or 20A/72V dc	10A/350V ac @150A 20A/250V ac @100A 10A or 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

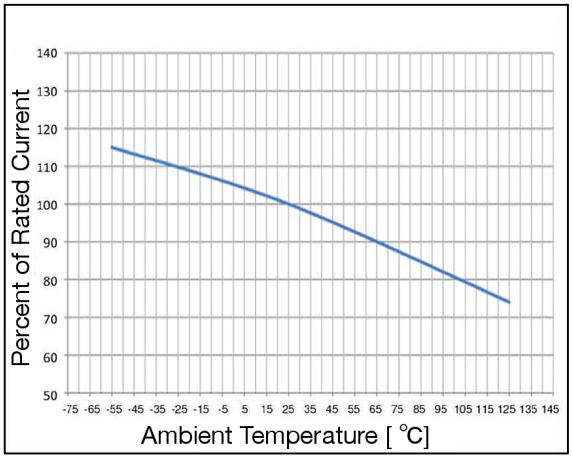
Part Number	Ampere Rating	Typical Cold Resistance (ohms)	Volt-drop @100% In (Volt) max.	Voltage and Interrupting Ratings	Melting I²T <10 mSec (A² Sec)	Melting I²T @10 In (A² Sec)	Maximum Power Dissipation (W)	Agency Approvals	
								c UL us	TÜV
0697H0250-XX	250mA	0.800	0.280	See Table of Safety Approvals on Page 1 for Voltage and associated Interrupting Ratings	0.18	0.26	0.070	Y	
0697H0315-XX	315mA	0.500	0.260		0.27	0.35	0.075	Y	
0697H0400-XX	400mA	0.360	0.220		0.57	1.10	0.080	Y	
0697H0500-XX	500mA	0.260	0.200		1.1	1.5	0.09	Y	
0697H0630-XX	630mA	0.190	0.170		1.5	2.5	0.11	Y	
0697H0800-XX	800mA	0.140	0.150		3.6	4.6	0.12	Y	
0697H1000-XX	1A	0.085	0.130		6.1	8.5	0.13	Y	
0697H1250-XX	1.25A	0.070	0.120		8	11	0.15	Y	
0697H1600-XX	1.6A	0.050	0.100		13	16	0.18	Y	
0697H2000-XX	2A	0.036	0.090		23	29	0.20	Y	
0697H2500-XX	2.5A	0.027	0.087		35	47	0.22	Y	
0697H3000-XX	3A	0.022	0.085		58	64	0.27	Y	
0697H3150-XX	3.15A	0.021	0.083		58	70	0.29	Y	
0697H4000-XX	4A	0.016	0.080		85	95	0.33	Y	
0697H5000-XX	5A	0.013	0.080		130	140	0.35	Y	
0697H6300-XX	6.3A	0.010	0.080		180	185	0.51	Y	
0697H8000-XX	8A	0.007	0.080		325	335	0.77	Y	
0697H9100-XX	10A	0.0055	0.080		370	390	0.90	Y	Y
0697H9120-XX	12A	0.0047	0.090		360	480	0.96	Y	
0697H9150-XX	15A	0.0035	0.090		563	575	1.10	Y	
0697H9160-XX	16A	0.0033	0.090		610	650	1.20	Y	
0697H9200-XX	20A	0.0026	0.090		1100	1100	1.90	Y	Y

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

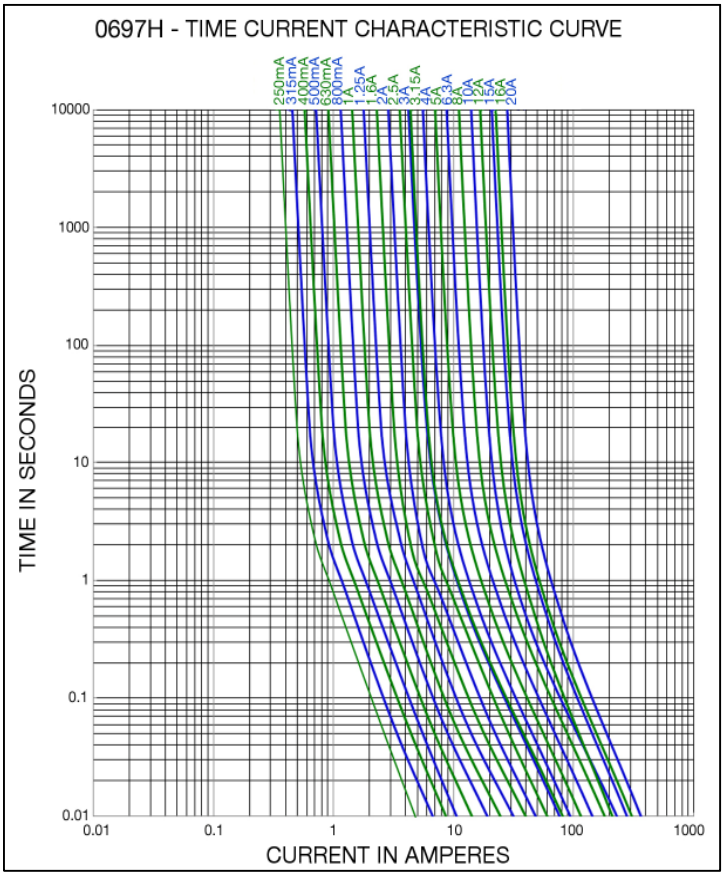
Bel Fuse Inc.
206 Van Vorst Street
Jersey City, NJ 07302 USA

+1 201.432.0463
Bel.US.CS@belf.com
belfuse.com/circuit-protection

Temperature Derating Curve

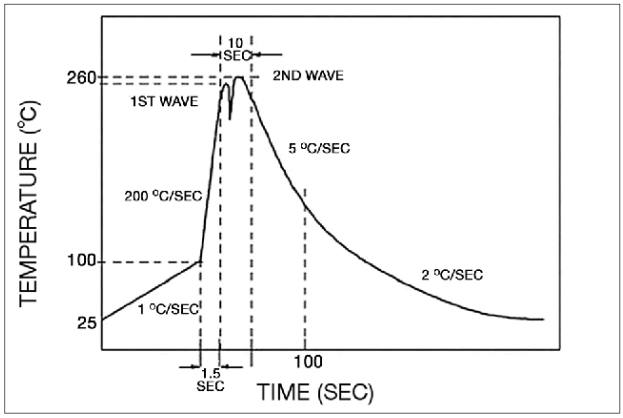


Average Time Current Curve



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.



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

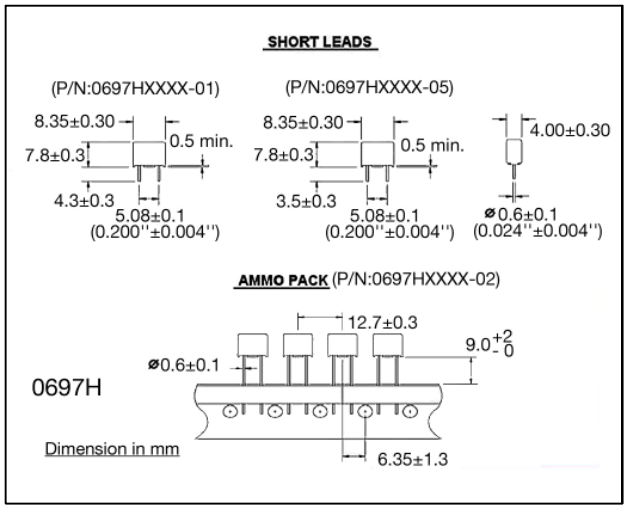
+1 201.432.0463
Bel.US.CS@belf.com
belfuse.com/circuit-protection

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

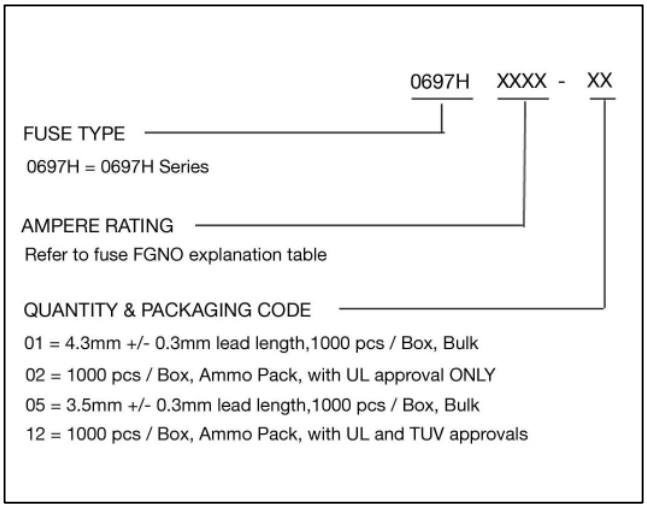
Fraction	Decimal	Milliamps	Bel FGNO[XXXX]
1/4	0.250	250	0250
	.315	315	0315
4/10	.400	400	0400
1/2	.500	500	0500
	.630	630	0630
8/10	.800	800	0800

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

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Bel:

0697H6300-01 0697H0315-01 0697H2000-05 0697H2500-05 0697H4000-01 0697H9120-05 0697H1600-01
0697H0250-01 0697H0250-05 0697H8000-02 0697H9160-05 0697H0800-05 0697H8000-01 0697H1600-05
0697H9150-02 0697H0630-02 0697H9120-01 0697H9200-01 0697H5000-01 0697H4000-05 0697H9120-02
0697H2500-02 0697H0315-02 0697H9100-02 0697H6300-02 0697H0315-05 0697H9160-02 0697H0400-05
0697H0800-01 0697H9200-02 0697H9200-05 0697H6300-05 0697H1000-01 0697H3150-02 0697H9160-01
0697H0400-01 0697H1250-05 0697H0400-02 0697H4000-02 0697H0500-01 0697H9100-05 0697H9150-05
0697H0500-02 0697H1000-05 0697H0250-02 0697H3150-01 0697H1000-02 0697H9100-01 0697H0630-01
0697H2000-01 0697H2000-02 0697H0500-05 0697H3150-05 0697H0630-05 0697H5000-05 0697H1250-02
0697H1250-01 0697H1600-02 0697H2500-01 0697H8000-05 0697H9150-01 0697H0800-02 0697H5000-02