Type 0698Q

Quick Acting Radial Lead Micro Fuse Series

HF Pb 0698Q Series — RoHS 2 Compliant

AEC-Q Compliant

Description

Radial lead, quick act type, with enhanced voltage ratings (350VAC; 140VDC) and Breaking Capacity. Designed and Certified to UL 248-14.

Features

- Enhanced breaking capacity
- Enhanced operating rated voltage-350VAC; 140VDC
- AEC-Q Compliant
- RoHS 2 compliant
- Halogen Free
- Lead Free
- Meets Bel automotive qualification*
  * - Largely based on internal AEC-Q test plan

Applications

Provide individual protection for components or internal circuits.
- Lighting appliance
- Telecom products
- Battery charger
- Power supply
- Monitors
- Adapter

LEAD FREE = Pb
HALOGEN FREE = HF

Physical Specifications

Materials	Base and Cover : Black thermoplastic, UL 94-V0
	Pins : Matte Tin Plated Copper
Marking	On Fuse :
	"bel", "0698Q", "Current Rating", ".350V" & "c UL us "
	On Label :
	"bel", "0698Q", "Current Rating", "Voltage Rating", "Interrupting Rating", " c UL us" and " RoHS ", " e "(China RoHS compliant).

Electrical Characteristics (UL / CSA STANDARD 248-14)

Testing current	Blow Time	
	Minimum	Maximum
100%	4 Hrs.	N/A
200%	N/A	5 Sec

Safety Agency Approvals

Safety Agency	Safety Agency Certificate	Voltage Rating (V)	Ampere Range / Volt @ I.R. ability*
c UL us	E20624	1.5A-6.3A/350V AC 140V DC	1.5A-6.3A/350V AC @ 100A 140V DC @ 150A
*I.R.= Interrupting Rating = Short Circuit Rating(Amps)			

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Specifications subject to change without notice

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Environmental Specifications

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)	Typical Volt-drop @100% In (Volt) max.	Voltage and Interrupting Ratings	Melting I^2T <10 mSec (A^2 Sec)	Melting I^2T @10 In (A^2 Sec)	Maximum Power Dissipation (W)	Agency Approvals
0698Q1500-XX	1.5A	0.057	0.17	See Table of Safety Approvals on Page 1 for Voltage and associated Interrupting Ratings	0.64	0.61	0.18	Y
0698Q2000-XX	2A	0.039	0.15		1.20	1.30	0.25	Y
0698Q2500-XX	2.5A	0.028	0.12		2.59	2.50	0.25	Y
0698Q3150-XX	3.15A	0.022	0.11		4.90	4.96	0.31	Y
0698Q4000-XX	4A	0.016	0.10		3.95	4.74	0.35	Y
0698Q5000-XX	5A	0.012	0.098		6.04	7.25	0.42	Y
0698Q6300-XX	6.3A	0.009	0.091		12.66	14.92	0.47	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

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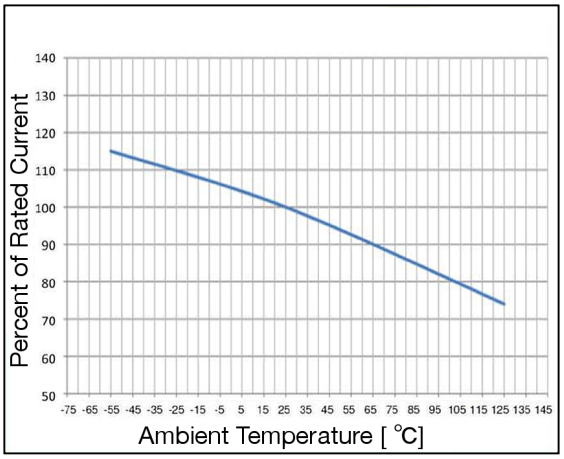
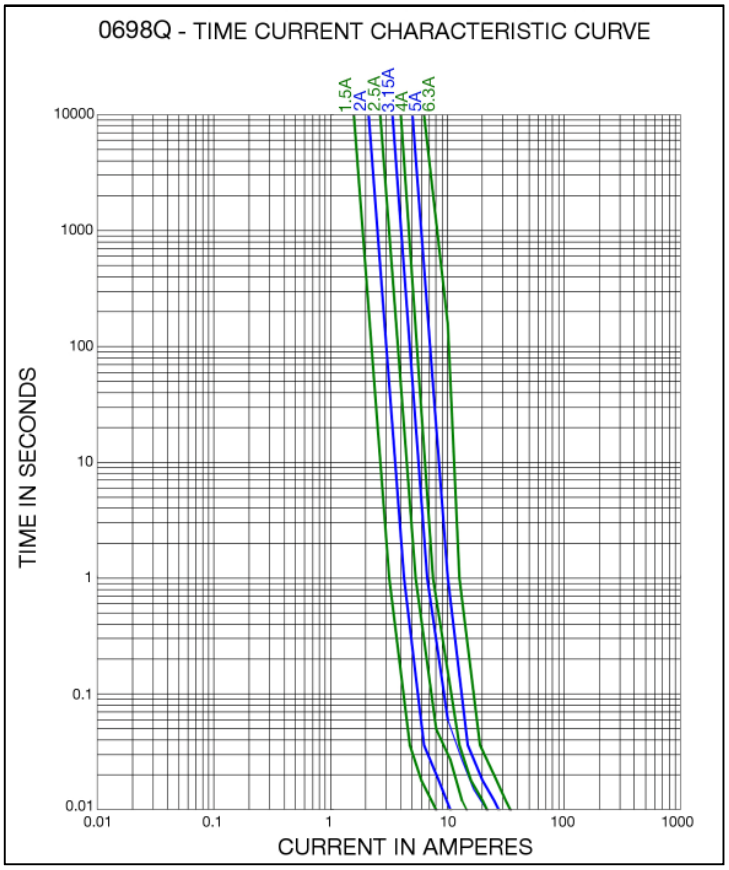
Temperature Derating Curve

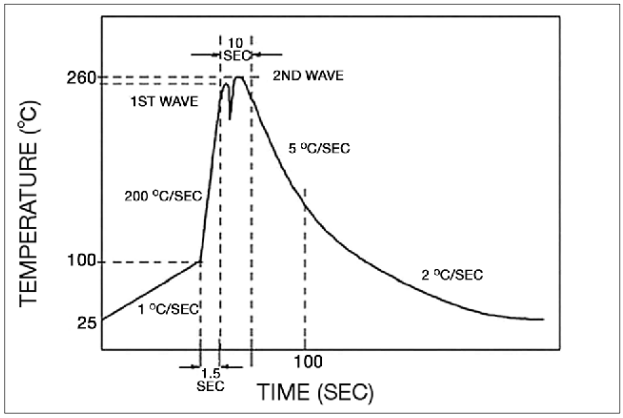


Average Time Current Curve



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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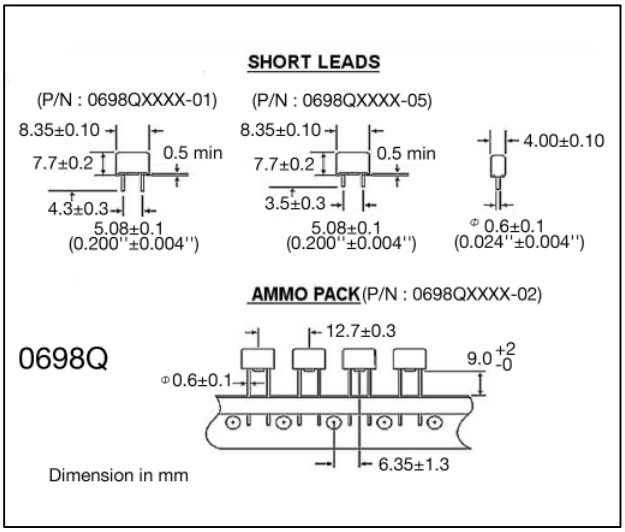
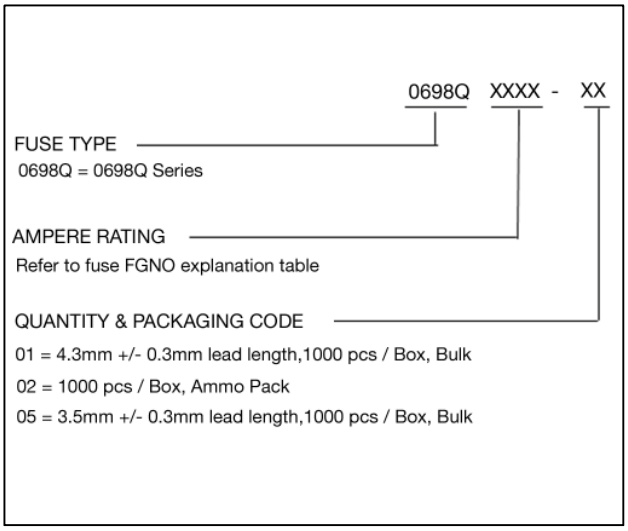
Fuse FGNO Explanation
0698 Q [XXXX] X XX
0698Q=0698Q; [XXXX]=Ampere Rating; XX=See Ordering Information as below

Fraction	Decimal	Amps	Bel FGNO[XXXX]
1-1/2	1.50	1.5	1500
	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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