

# Type 0698Q

## Quick Acting Radial Lead Micro Fuse Series

HF  0698Q Series

RoHS 2 Compliant

### Description

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

### Features

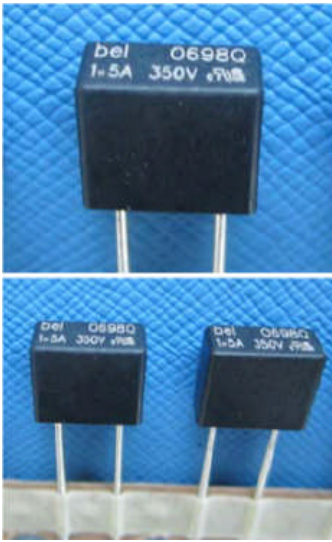
- Enhanced breaking capacity
- Enhanced operating rated voltage-350VAC; 140VDC
- AEC-Q Compliant
- RoHS 2 compliant
- Halogen Free
- Lead Free
- Meets Bel automotive qualification\*
- \* - Largely based on internal AEC-Q test plan

### Applications

Provide individual protection for components or internal circuits.

- Lighting appliance
- Telecom products
- Battery charger
- Power supply
- Monitors
- Adapter

LEAD FREE =   
HALOGEN FREE = 



**AEC-Q Compliant**

### Physical Specifications

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

## 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°C, 20 sec)
Moisture Resistance	MIL-STD-202G, Method 202G, Method 106G
Operating Temperature	-55°C to +125°C

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 I²T <10 mSec (A² Sec)	Melting I²T @10 In (A² 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")



Specifications subject to change without notice

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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°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

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