

Type SSQ

Square Ceramic Surface Mount Quick Acting Fuse

2410 Size
RoHS 6 Compliant

HF Pb SSQ Series Fuse



Features

- Quick Acting
- Small size, 2410SMD
- Wide range of current rating from 100mA to 15A
- Wide operating temperature range
- Tape and Reel for auto-insert SMD process.
- RoHS 6 compliant (MSL = 1)
- Halogen Free
- Leadfree

Applications

- Notebook
- LCD monitor
- PC computer
- Office electronic equipment
- Industrial equipment
- Medical equipment
- POE, POE+
- LCD / LED monitor
- Power supply
- LCD / LED TV

HALOGEN FREE = HF

LEAD FREE = Pb

Electrical Characteristics (UL / CSA / STD.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	AMPERE RANGE / VOLT @ I.R.ABILITY
SP	LR39772	100mA - 7A / 125V @50A AC
UL	E20624	100mA - 7A / 125V @50A AC and 86V @ 10,000A DC and 125V @ 300A DC 7.1A - 12A / 125V @ 50A AC and 86V @ 10,000A DC
UL	E20624	15A / 86V @10,000A DC
CE		100mA - 12A / 125V @50A AC 100mA - 15A / 86V @ 10,000A DC 100mA - 7A / 125V @ 300A DC

Specifications Subject to change without notice.

Environmental Specifications

Shock Resistance	MIL-STD-202G, Method 213B, Test Condition I (100 G's peak for 6 milliseconds; Sawtooth Waveform)
Vibration Resistance	MIL-STD-202G, Method 201A (10-55 Hz, 0.06 inch, total excursion).
Salt Spray Resistance	MIL-STD-202G, Method 101E, Test condition B (48 hrs).
Insulation Resistance	MIL-STD-202G, Method 302, Test Condition A (After Opening) 10,000 ohms minimum.
Solderability	MIL-STD-202G, Method 208H
Resistance to solder Heat	MIL-STD-202G Method 210F, Test Condition C. Top Side (260 °C, 20 sec) MIL-STD-202G Method 210F, Test Condition D. Bottom Side (260 °C, 10 sec)
Thermal Shock	MIL-STD-202G, Method 107G, Test Condition B (-65 °C to +125 °C).
Operating Temperature	-55 °C to +125 °C
Moisture Sensitivity Level	1 (According to IPC J-Std-020)

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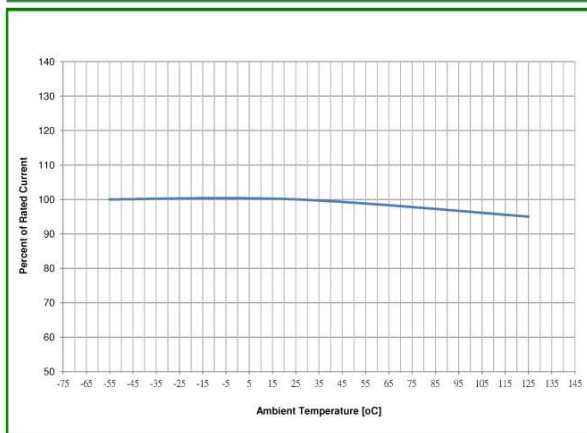
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SSQ Oct2013C

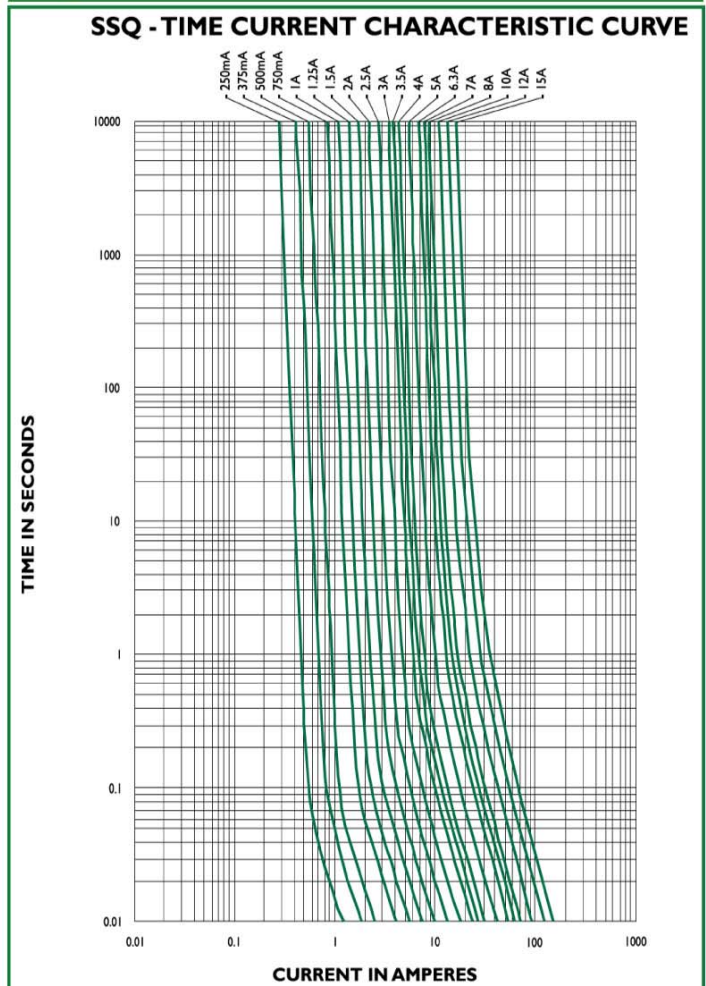
Electrical Specifications

Catalog Number	Ampere Rating (A)	Typical Cold Resistance (ohm)	Volt-drop @100% In (volt) Max.	Voltage Rating (V)	Interrupting Rating	Melting I ² T <10 m Sec (A ² Sec)	Melting I ² T @ 10 In (A ² Sec)	Maximum Power Dissipation (W)	Agency Approvals			
									UL	SP	RU	CE
SSQ250	250mA	0.560	0.30	125	125V @ 50A AC and 86V @ 10,000A DC and 125V @ 300A DC	0.02	0.01	0.07	Y	Y		Y
SSQ375	375mA	0.335	0.27	125		0.04	0.03	0.09	Y	Y		Y
SSQ500	500mA	0.235	0.26	125		0.07	0.06	0.11	Y	Y		Y
SSQ750	750mA	0.131	0.19	125		0.11	0.07	0.13	Y	Y		Y
SSQ1	1A	0.081	0.14	125		0.19	0.14	0.17	Y	Y		Y
SSQ1.25	1.25A	0.065	0.14	125		0.33	0.24	0.20	Y	Y		Y
SSQ 1.5	1.5A	0.056	0.14	125		0.57	0.41	0.23	Y	Y		Y
SSQ 2	2A	0.039	0.13	125		1.0	0.8	0.30	Y	Y		Y
SSQ2.5	2.5A	0.031	0.13	125		1.7	1.4	0.36	Y	Y		Y
SSQ3	3A	0.025	0.13	125		3.0	2.4	0.43	Y	Y		Y
SSQ3.5	3.5A	0.024	0.13	125		3.9	3.3	0.47	Y	Y		Y
SSQ4	4A	0.019	0.13	125		5.1	4.4	0.51	Y	Y		Y
SSQ5	5A	0.013	0.12	125		8.8	7.8	0.62	Y	Y		Y
SSQ6.3	6.3A	0.011	0.12	125		15	14	0.74	Y	Y		Y
SSQ7	7A	0.009	0.110	125		20	19	0.81	Y	Y		Y
SSQ8	8A	0.008	0.110	125	125V @ 50A AC and 86V @ 10,000A DC	26	25	0.89	Y			Y
SSQ10	10A	0.007	0.110	125		46	44	1.07	Y			Y
SSQ12	12A	0.005	0.100	125		70	69	1.24	Y			Y
SSQ15	15A	0.004	0.100	86	86V @ 10,000A DC	121	124	1.54			Y	Y

Temperature Derating Curve



Average Time Current Curve



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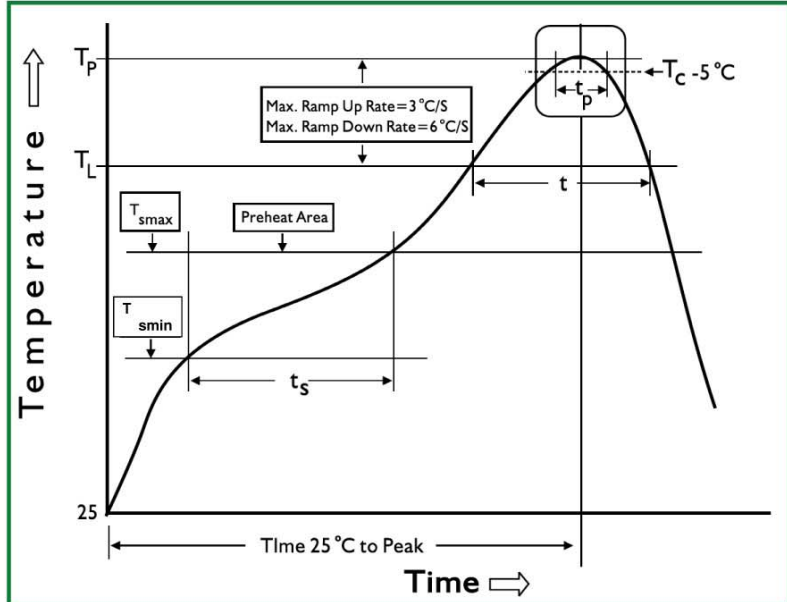
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Soldering Parameters

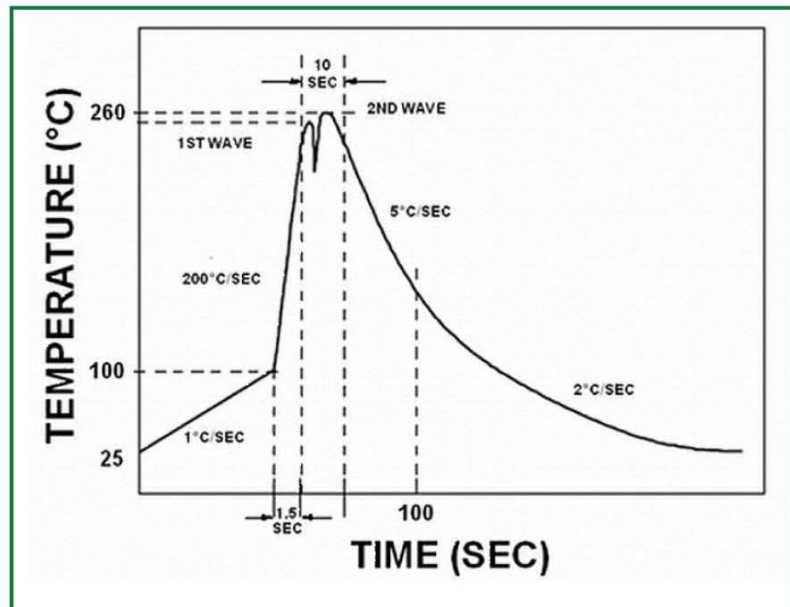
Lead-Free IR Reflow Profile (IPC/JEDEC J-STD-020D)

Reflow Parameter	
Minimum preheat temperature (TsMIN)	150 °C
Maximum preheat temperature (TsMAX)	200 °C
Preheat Time	60-180 seconds
TsMAX to TL ramp-up rate	3 °C/second max.
Time above temperature TL (tL)	217 °C 60-120 seconds
Peak Temperature (TP)	260 °C max.
Time within 5° of Peak TP	20-40 seconds
Ramp-down rate	6 °C/second max.



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 Tp	260°C
Time within +0 °C / -5°C of actual peak temperature	10 seconds
Ramp-down rate	5 °C / second max.



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SSQ Oct2013D

Physical Specifications

Materials	Body : Ceramic
	Terminations: Palladium Plated Brass Caps
Marking	On Fuse:
	" Current Rating" in black color,
	" bel " stamped in end caps
	On label:
	"bel" , "SSQ", "Current Rating", "Voltage Rating", "Interrupting Rating", "Appropriate Safety Logos" and " ", " " (China RoHS compliant).

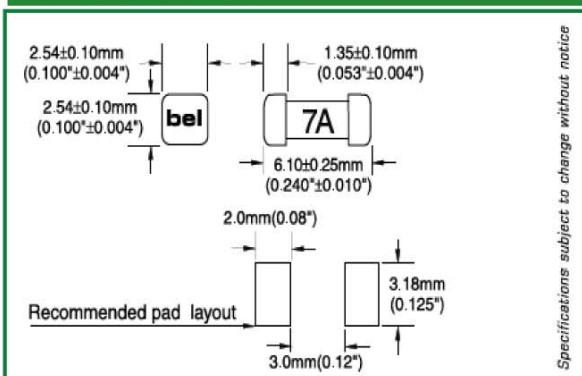
Fuse FGNO Explanation

06XX-[XXXX]-XX, [XXXX]=Ampere Rating

Fraction	Decimal	Milliamps	Bel FGNO[XXXX]
1/32	0.032	32	0032
1/25	.040	40	0040
1/20	.050	50	0050
1/16	.063	63	0063
8/100	.080	80	0080
1/10	.100	100	0100
1/8	.125	125	0125
15/100	.150	150	0150
	.160	160	0160
2/10	.200	200	0200
1/4	.250	250	0250
3/10	.300	300	0300
	.315	315	0315
3/8	.375	375	0375
4/10	.400	400	0400
1/2	.500	500	0500
6/10	.600	600	0600
	.630	630	0630
7/10	.700	700	0700
3/4	.750	750	0750
8/10	.800	800	0800

Fraction	Decimal	Amps	Bel FGNO[XXXX]
	1.0	1	1000
1-1/4	1.25	1.25	1250
1-1/2	1.50	1.5	1500
	1.60	1.6	1600
	2.0	2	2000
2-1/4	2.25	2.25	2250
2-1/2	2.5	2.5	2500
	3.0	3	3000
	3.15	3.15	3150
3-1/2	3.5	3.5	3500
	4.0	4	4000
	5.0	5	5000
	6.0	6	6000
	6.3	6.3	6300
	7.0	7	7000
7-1/2	7.5	7.5	7500
	8.0	8	8000
		10	9100
		12	9120
		15	9150
		20	9200
		25	9250
		30	9300

Mechanical Dimensions



Ordering Information

FUSE TYPE	0679
AMPERE RATING	Refer to fuse FGNO explanation table
QUANTITY & PACKAGING CODE	01 = 1000 pcs with Tape and Reel 05 = 5000 pcs with Tape and Reel

Packaging

Packaging Tape & Reel	Packaging Specification	Quantity	Quantity & Packaging Code
12 mm wide tape with 13 inches Diameter reel	EIA Standard 481-D	5000	05
12 mm wide tape with 7 inches Diameter reel	EIA Standard 481-D	1000	01

Specifications subject to change without notice

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