Type 0ACJ

High Voltage DC, SMD Fuse

0ACJ Series

RoHS Compliant



AEC-Q Compliant

Features

- Surface mount design to save space
- Ceramic tube, silver plated cap construction
- Compatible with 260℃, IR Pb-free solder process
- Wide operating temperature range, -40℃ to 125℃
- Tape & Reel for auto-insert SMD process
- MSL = 1
- RoHS compliant with exemption 7(a)
  Full compliance with EU Directive 2011/65/EU and amending directive 2015/863
- AEC-Q Compliant
- Meets Bel automotive qualification*

* - Largely based on internal AEC-Q test plan

Applications

- Battery Management Systems, (BMS)
- Li-ion Battery Packs
- DC-DC Converters
- Uninterruptible Power Supply (UPS) - Single phase and 3-Phase
- 380VDC server / lighting in data center

Physical Specifications

Materials	Body : Ceramic
	Cap : Silver plated copper
Marking	On Fuse :
	"Current Rating"
	On Label :
	"bel", "0ACJ", "Current Rating", "Voltage Rating", "Interrupting Rating", "Appropriate Safety Logos" and " ", " "(China RoHS compliant).

Electrical Characteristics

% of Ampere Rating (A)	Opening Time	
	Min	Max
100%	4 hour	-
200%	-	120 sec

Safety Agency Approvals

Safety Agency	Ampere Rating / Voltage Rating	Ampere Range / Volt @ I.R. ability**
	1-3.15A/600V DC /400V DC /350V AC 4-5A/500V DC /400V DC /350V AC 6-7.5A/400V DC /350V AC	1-3.15A/600V @ 100A DC /400V @ 200A DC /350V @ 100A AC 4-5A/500V @ 100A DC /400V @ 200A DC /350V @ 100A AC 6-7.5A/400V @ 200A DC /350V @ 100A AC
** AC Interrupting Rating (measured at designated voltage, 100% power factor); DC Interrupting Rating (measured at designated voltage, time constant of less than 50 microseconds, battery source)		

Specifications subject to change without notice

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Electrical Specifications

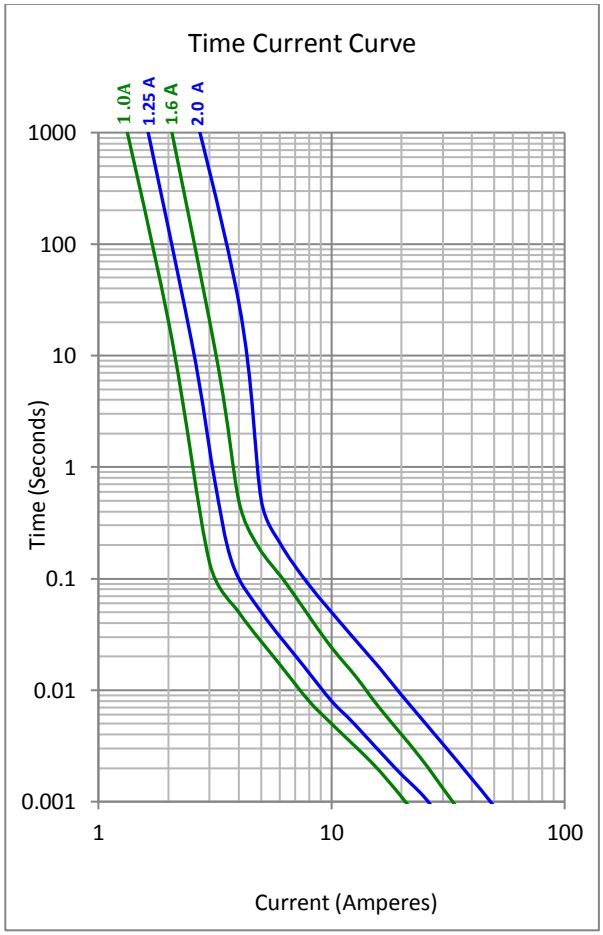
Part Number	Ampere Rating	Alpha Mark	Voltage and Interrupting Ratings	Typical Cold. Resistance (mohms)**	Typical Voltage Drop (mV)	Typical Pre-Arcing I²t (A²Sec)***
0ACJ-1000-XX	1A	1	See Table of Ratings on Page 1 for Voltage and associated Interrupting Ratings	252	335	0.50
0ACJ-1250-XX	1.25A	1.25		192	325	0.95
0ACJ-1600-XX	1.6A	1.6		116	230	2.3
0ACJ-2000-XX	2A	2		93	255	4.1
0ACJ-2500-XX	2.5A	2.5		51	174	2.6
0ACJ-3150-XX	3.15A	3.15		39	165	3.0
0ACJ-4000-XX	4A	4		31	175	5.5
0ACJ-5000-XX	5A	5		20	155	11.5
0ACJ-6000-XX	6A	6		16.3	155	15
0ACJ-7500-XX	7.5A	7.5		13.5	165	25

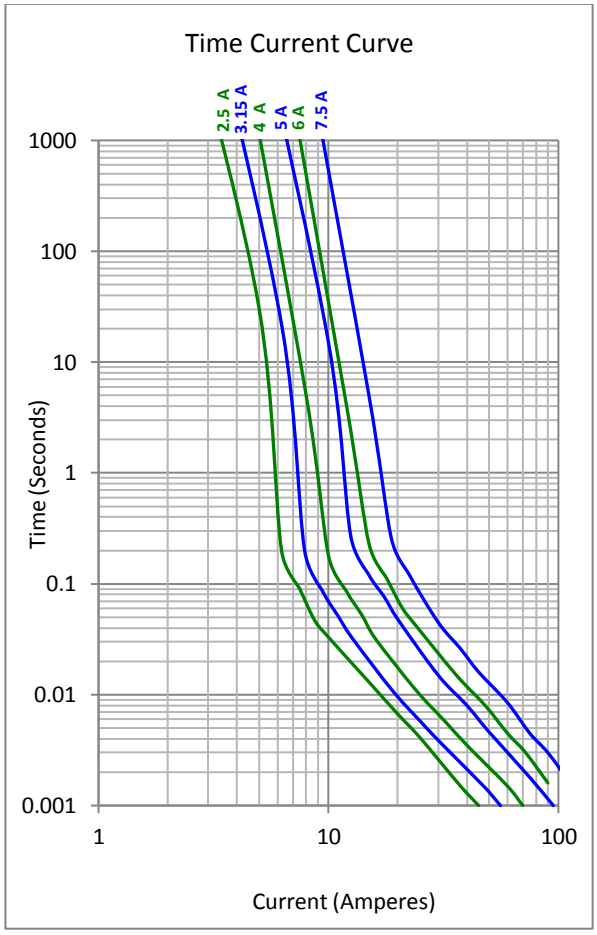
Consult manufacturer for other ratings

** DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25℃

*** Typical Pre-arcing I²t are measured at 10In Current, DC battery bank.

Time Current Curve





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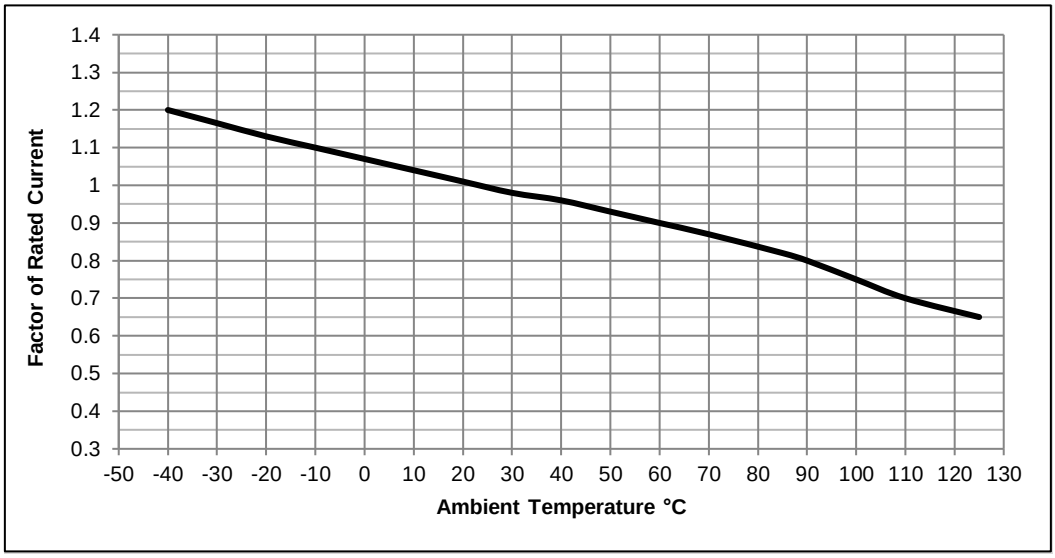
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Temperature derating curve

Normal Operating Temperature: 25℃ ± 2℃
Operating Temperature: -40℃ to 125℃ with proper correction factor applied.

Chart of correction factor



Soldering Characteristics

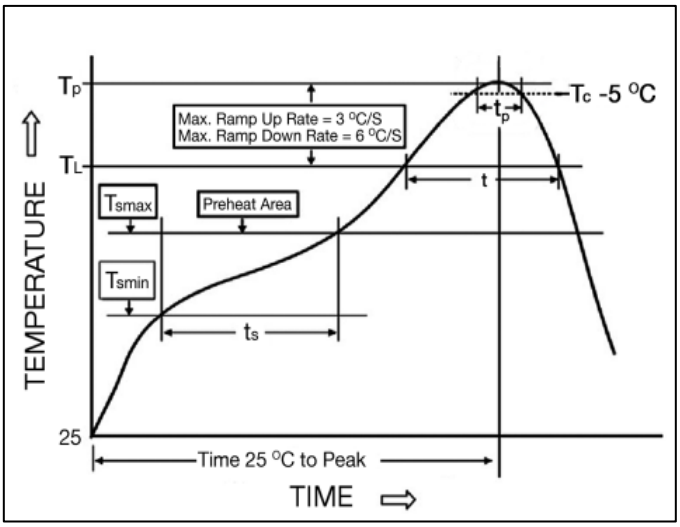
Reflow Soldering

- Temperature: 260° C
- Time: 30 Seconds Maximum

Manual Soldering (not recommended)

- Temperature: 350° C
- Time: 5 Seconds Maximum

Profile Feature	
Preheat & Soak Temperature min (T_{smin}) Temperature max (T_{smax}) Time (T_{smin} to T_{smax}) (t_s)	**Lead(Pb) free solder** 150℃ 200℃ 60-120 seconds
Average ramp-up rate(T_{smax} to T_p)	3℃ / second max.
Liquidous temperature(T_L) Time at liquidous (t_L)	217℃ 60 – 150 seconds
Peak package body temperature (T_p)	260℃
Time (tp) within 5℃ of the specified classification temperature (T_c)	30 seconds
Average ramp-down rate(T_p to T_{smax})	6℃ / second max.
Time 25℃ to peak temperature	8 minutes max.



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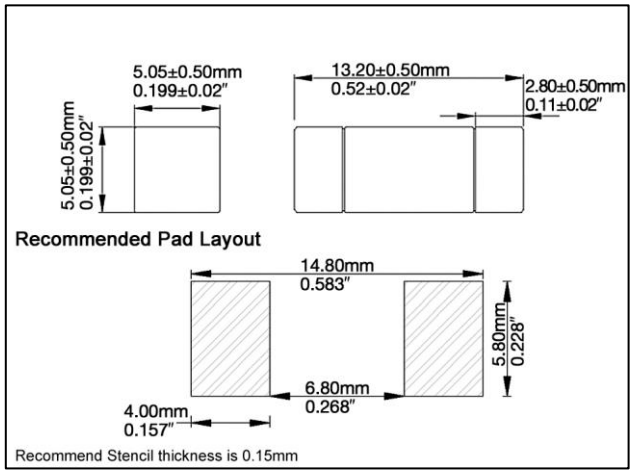
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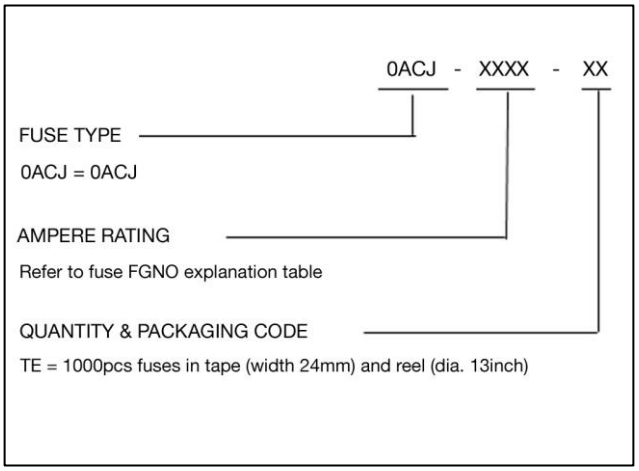
Fuse FGNO Explanation
0ACJ - [XXXX] -XX
0ACJ=0ACJ; [XXXX]=Ampere Rating; XX=See Ordering Information as below

Fraction	Decimal	Amps	Bel FGNO[XXXX]
	1.0	1	1000
1-1/4	1.25	1.25	1250
	1.6	1.6	1600
	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
	6.0	6	6000
	7.5	7.5	7500

Mechanical Dimensions



Ordering Information



Packaging

Packaging Option	Quantity	Packaging Code
Tape (width 24mm) and reel (dia. 13inch)	1000	TE

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