

Type 0ACJ

High Voltage DC, SMD Fuse

0ACJ Series

RoHS Compliant

Features

- Surface mount design to save space
- Ceramic tube, silver plated cap construction
- Compatible with 260°C, IR Pb-free solder process
- Wide operating temperature range, -40°C to 125°C
- 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



UK
CA c US CE
AEC-Q Compliant

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)		

Electrical Specifications

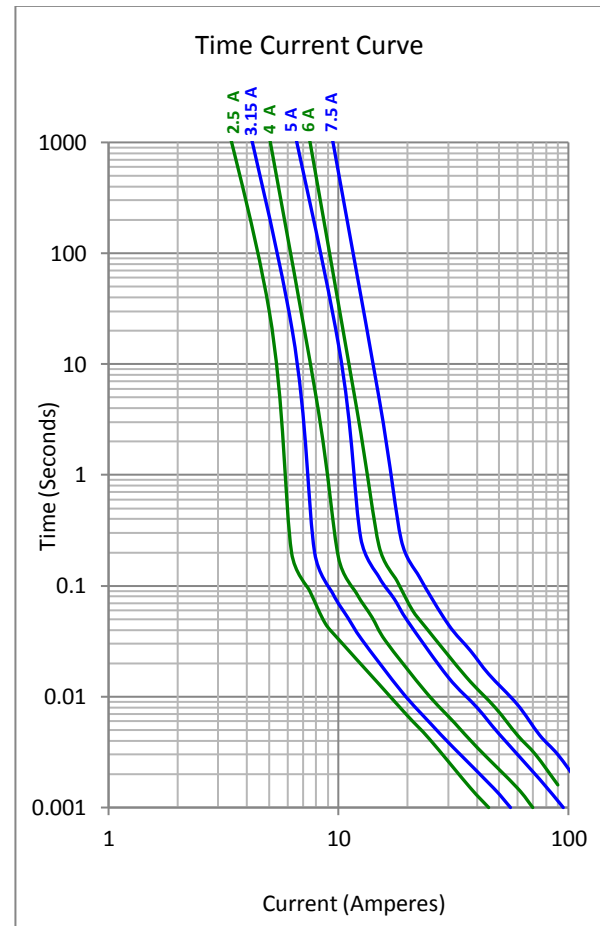
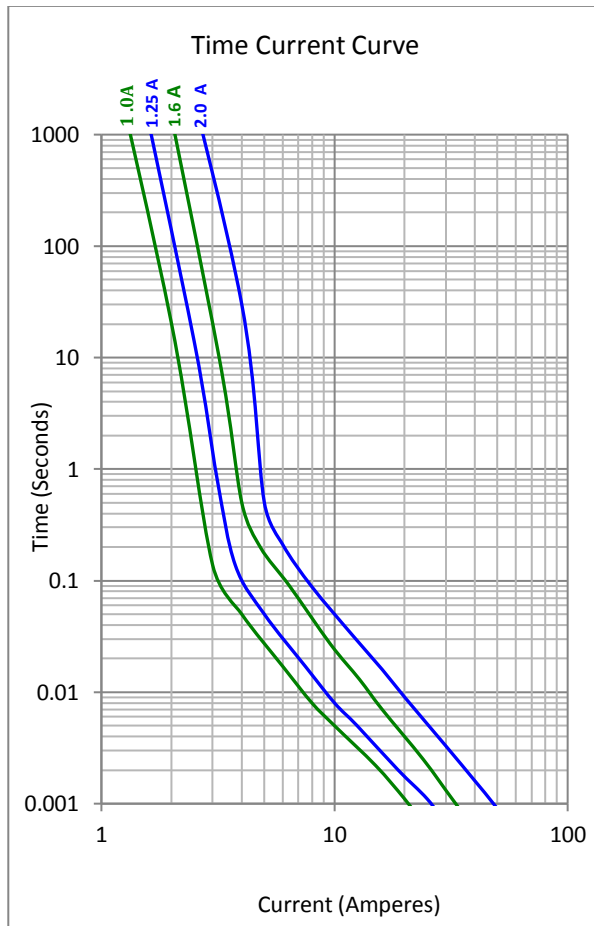
Part Number	Ampere Rating	Alpha Mark	Voltage and Interrupting Ratings	Typical Cold. Resistance (mohms)**	Typical Voltage Drop (mV)	Typical Pre-Arcing I ² t (A ² Sec)***
0ACJ-1000-XX	1A	1	See Table of Ratings on Page 1 for Voltage and associated Interrupting Ratings	252	335	0.50
0ACJ-1250-XX	1.25A	1.25		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 °C

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

Time Current Curve

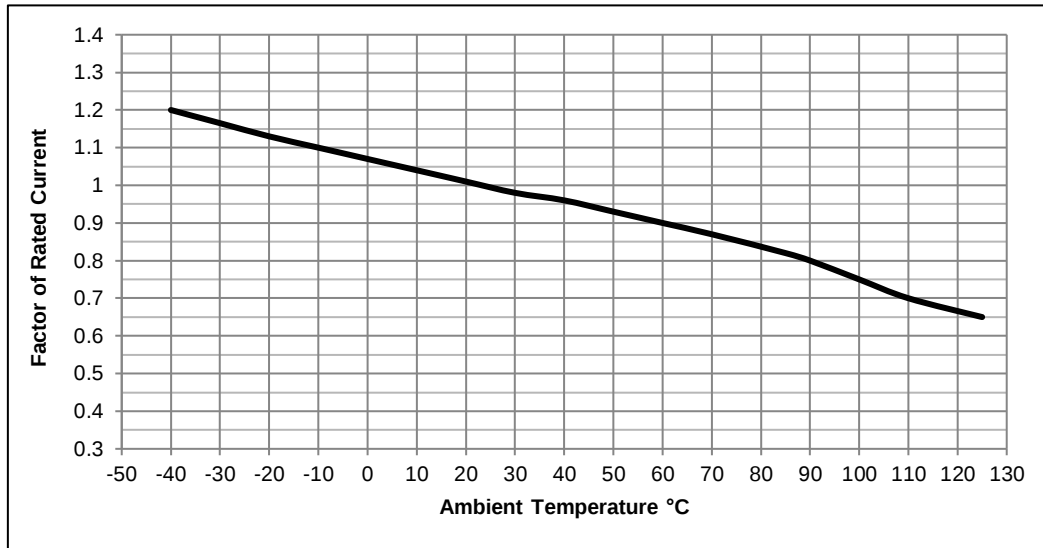


Temperature derating curve

Normal Operating Temperature: $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$

Operating Temperature: -40°C to 125°C with proper correction factor applied.

Chart of correction factor



Soldering Characteristics

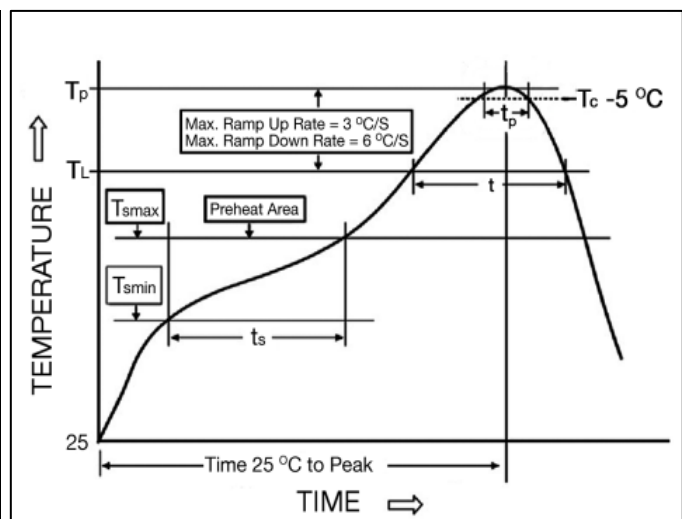
Reflow Soldering

- 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})	Lead(Pb) free solder
Temperature max (T_{smax})	150°C
Time (T_{smin} to T_{smax}) (t_s)	200°C
	60-120 seconds
Average ramp-up rate(T_{smax} to T_p)	$3^{\circ}\text{C} / \text{second max.}$
Liquidous temperature(T_L)	217°C
Time at liquidous (t_L)	60 – 150 seconds
Peak package body temperature (T_p)	260°C
Time (t_p) within 5°C of the specified classification temperature (T_c)	30 seconds
Average ramp-down rate(T_p to T_{smax})	$6^{\circ}\text{C} / \text{second max.}$
Time 25°C to peak temperature	8 minutes max.



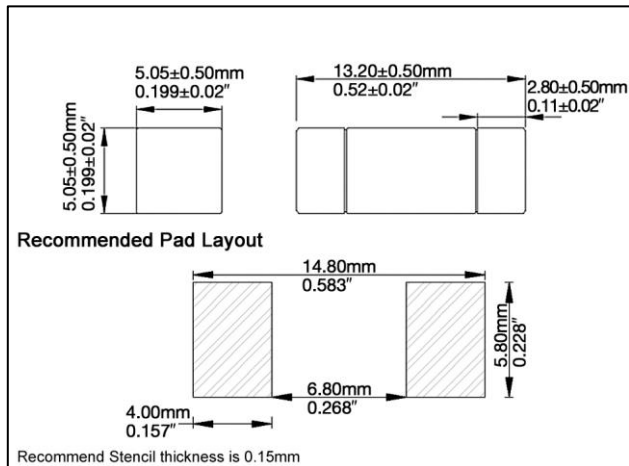
Fuse FGNO Explanation

0ACJ - [XXXX] -XX

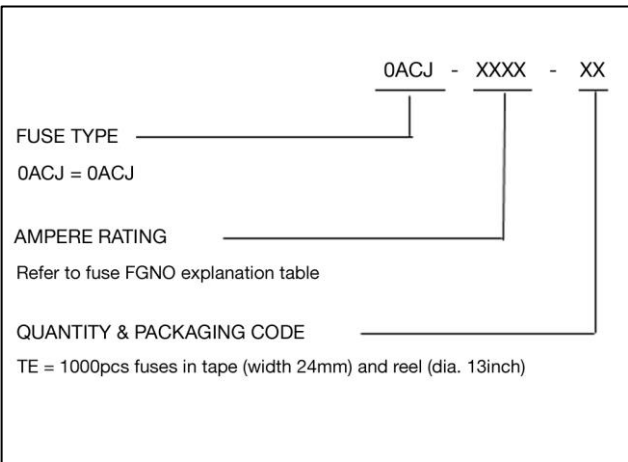
0ACJ=0ACJ; [XXXX]=Ampere Rating; XX=See Ordering Information as below

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