Type 0ACG
500VDC, SMD Fuse

HF 0ACG Series — RoHS 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
- Complies with IEC 60127-7 standard
- 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

HALOGEN FREE = HF

AEC-Q Compliant

Physical Specifications

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

Electrical Characteristics

% of Ampere Rating (A)	Operating Time	
	Min	Max
125%	1 hour	-
200%	-	120 sec
1000%		1 sec

Safety Agency Approvals

Safety Agency	Ampere Rating / Voltage Rating	Ampere Range / Volt @ I.R. ability**
	1-3.15A/500V DC /350V DC /350V AC 4-5A/450V DC /125V DC /350V AC	1-3.15A/500V @ 100A DC /350V @1500A DC /350V @ 100A AC 4-5A/450V @ 100A DC /125V @ 1500A 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

bel POWER SOLUTIONS & PROTECTION
a bel group

belfuse.com/circuit-protection

Please read our datasheet & drawing disclaimer here.

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)***
0ACG-1000-XX	1A	1	See Table of Ratings on Page 1 for Voltage and associated Interrupting Ratings	220	220	0.50
0ACG-1250-XX	1.25A	1.25		140	210	0.95
0ACG-1600-XX	1.6A	1.6		90	190	2.3
0ACG-2000-XX	2A	2		70	185	4.1
0ACG-2500-XX	2.5A	2.5		40	120	2.6
0ACG-3150-XX	3.15A	3.15		31.5	140	3.3
0ACG-4000-XX	4A	4		24.5	140	5.5
0ACG-5000-XX	5A	5		17.5	130	11.5

Consult manufacturer for other ratings

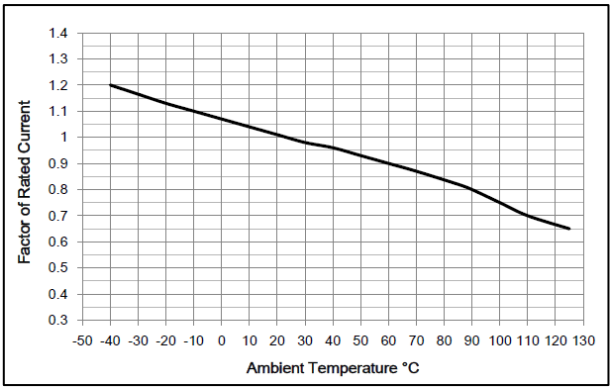
** DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25℃

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

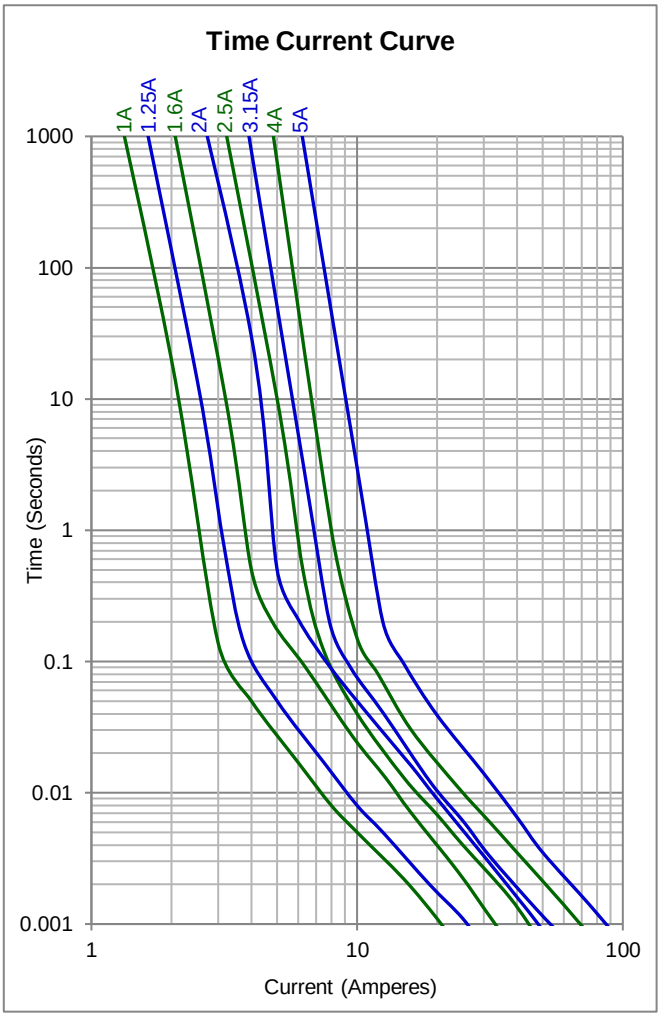
Temperature derating curve

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

Chart of correction factor



Time Current Curve



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

© 2023 Bel Fuse, Inc.

Soldering Characteristics

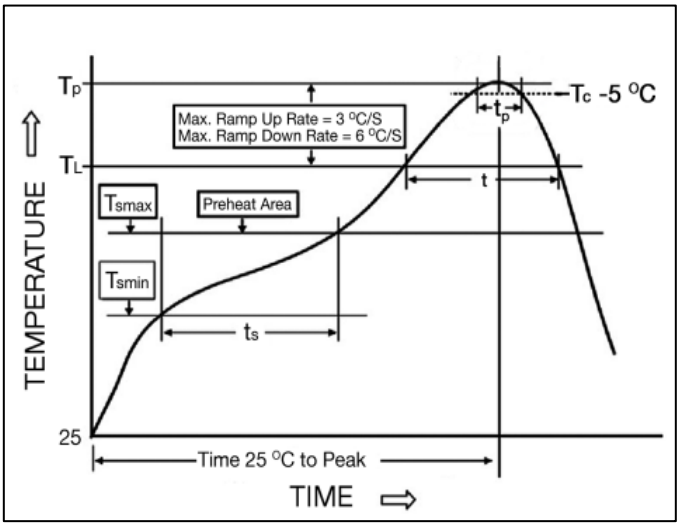
Reflow Soldering

- 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℃ max
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.



Bel Fuse Inc.
206 Van Vorst Street
Jersey City, NJ 07302 USA

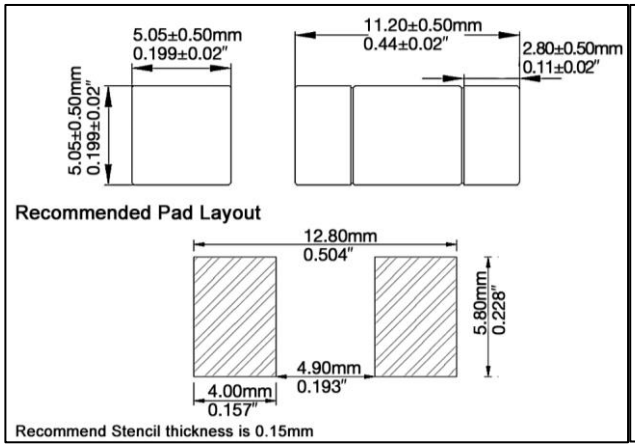
+1 201.432.0463
Bel.US.CS@belf.com
belfuse.com/circuit-protection

© 2023 Bel Fuse, Inc.

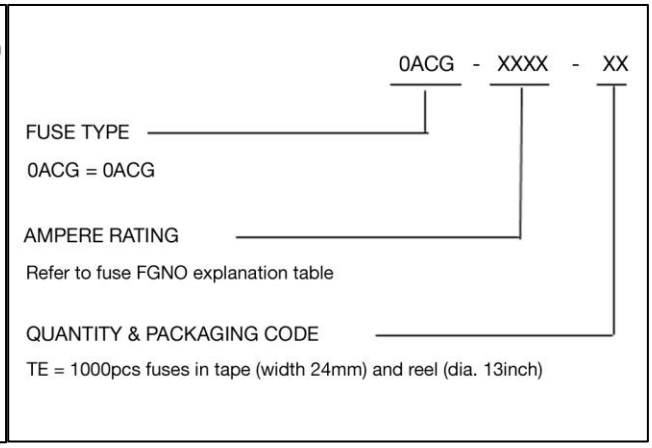
Fuse FGNO Explanation
0ACG - [XXXX] -XX
0ACG=0ACG; [XXXX]=Ampere Rating; XX=See Ordering Information as below

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

Mechanical Dimensions



Ordering Information



Packaging

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

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

© 2023 Bel Fuse, Inc.