

# Type 0ACA



## Power Battery Packs Protection Series

HF  0ACA Series

RoHS Compliant

### Features

- Surface mount design to save space, 2410 SMD
- Ceramic square body with Silver plated end cap
- Compatible with 260 °C, IR Pb-free solder process
- Wide operating temperature range, -55°C to 125°C
- Tape & Reel for auto-insert SMD process
- Designed to UL248-1
- Full compliance with EU Directive 2011/65/EU and amending directive 2015/863
- Full compatible with lead-free solder and high temperature profile associated with lead-free assembly
- pass internal reliability performance and applicable for low duty application (bicycle etc.)



HALOGEN FREE =   
LEAD FREE = 

### Applications

- E-Bike
- E-Motor
- e Robot sweeper
- Power Tools




### Physical Specifications

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

### Electrical Characteristics

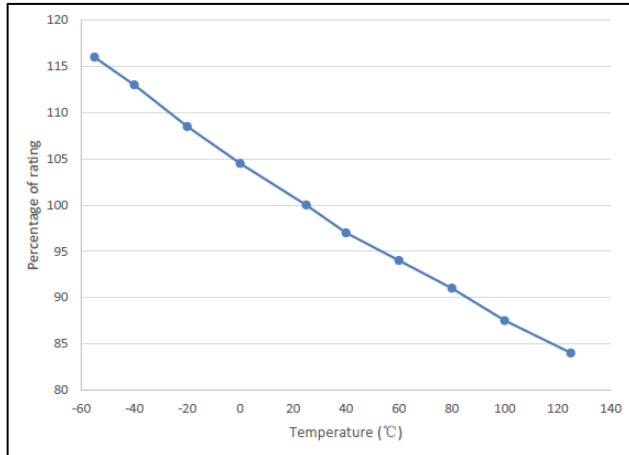
% of Ampere Rating (A)	Operating Time	
	Min	Max
100%	4hours	-
200%	-	60sec

### Safety Agency Approvals

Safety Agency	Ampere Rating / Voltage Rating	Ampere Range / Volt @ I.R. ability*
	20-30A / 72V DC 40A / 63V DC	20-30A / 72V @ 500A DC 40A / 63V @ 500A DC
*I.R.=DC Interrupting Rating		

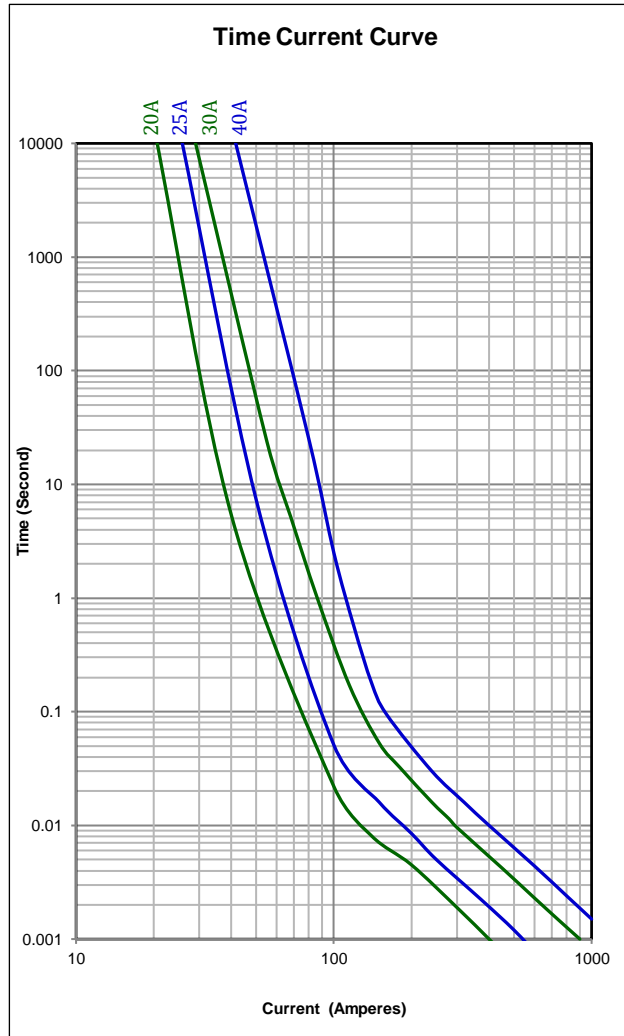
## Temperature Re-Rating Curve

Normal Operating Temperature:  $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$   
 Operating Temperature:  $-55^{\circ}\text{C}$  to  $125^{\circ}\text{C}$  with proper correction factor applied.  
 Chart of correction factor



Storage Temperature:  $-55^{\circ}\text{C}$  to  $125^{\circ}\text{C}$

## Average Time Current Curve



## Electrical Specifications

Part Number	Ampere Rating	Voltage and Interrupting Ratings	Typical Cold. Resistance (mohms)	Typical Voltage Drop (mV)	Typical Pre-Arcing $I^2t$ ( $\text{A}^2\text{Sec}$ )**
0ACA-9200-XX	20A	See Table of Ratings on Page 1 for Voltage and associated Interrupting Ratings	2.3	60	210
0ACA-9250-XX	25A		1.7	55	400
0ACA-9300-XX	30A		1.2	50	900
0ACA-9400-XX	40A		0.9	50	1600

Consult manufacturer for other ratings  
 \*\*Typical Pre-arcing  $I^2t$  are measured at  $10I_n$  Current.



Specifications subject to change without notice

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## Soldering Characteristics

### Wave Immersion

- Reservoir Temperature: 260° C
- Time in Reservoir : 10 Seconds Maximum

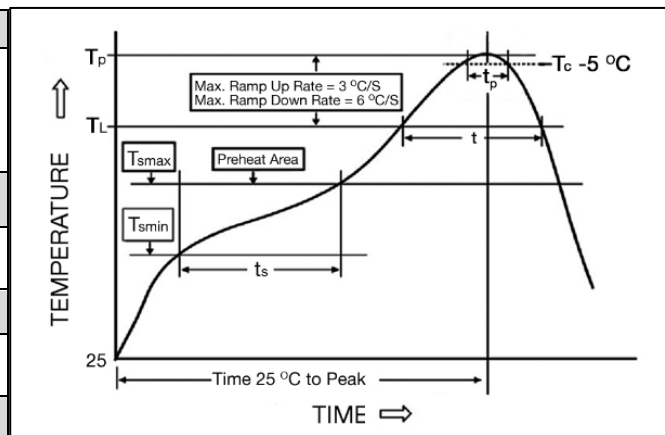
### Infrared Reflow

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

### Hand Soldering (not recommended)

- Maximum tip temperature: 350°C
- Maximum soldering time: 5 seconds max

Profile Feature	
<b>Preheat &amp; Soak</b>	
Temperature min (T <sub>min</sub> )	150°C
Temperature max (T <sub>max</sub> )	200°C
Time (T <sub>min</sub> to T <sub>max</sub> ) (t <sub>s</sub> )	60-120 seconds
Average ramp-up rate (T <sub>max</sub> to T <sub>p</sub> )	3°C/second max.
Liquidous temperature (T <sub>L</sub> )	217°C
Time at liquidous (t <sub>L</sub> )	60-150 seconds
Peak package body temperature (T <sub>p</sub> )	260°C
Time (t <sub>p</sub> ) within 5°C of the specified classification temperature (T <sub>c</sub> )	30 seconds
Average ramp-down rate (T <sub>p</sub> to T <sub>max</sub> )	6°C/second max.
Time 25°C to peak temperature	8 minutes max.



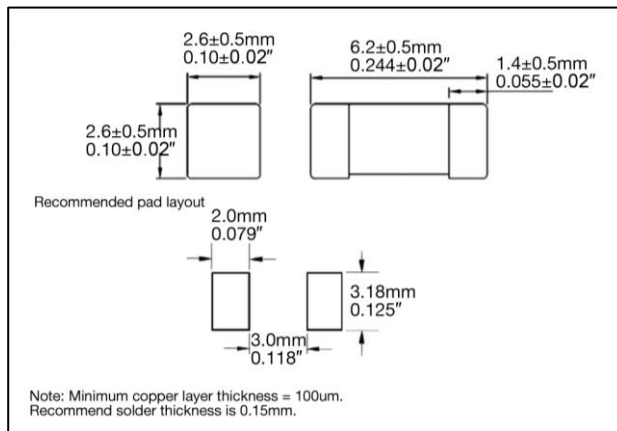
## Fuse FGNO Explanation

0ACA - [XXXX] -XX

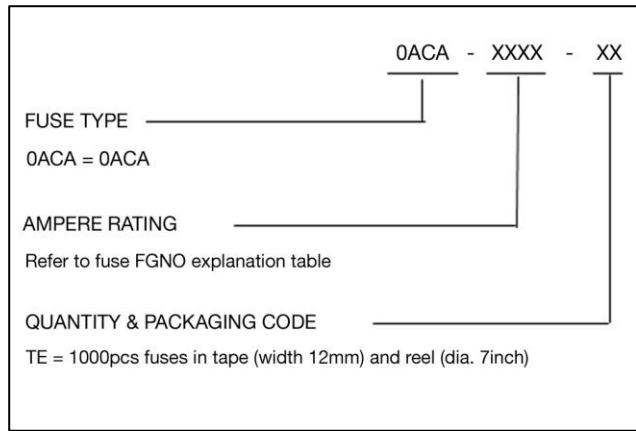
0ACA=0ACA; [XXXX]=Ampere Rating; XX=See Ordering Information as below

Decimal	Amps	Bel FGNO[XXXX]
20	20	9200
25	25	9250
30	30	9300
40	40	9400

## Mechanical Dimensions



## Ordering Information



## Packaging

Packaging Option	Quantity	Packaging Code
Tape (width 12mm) and reel (dia. 7inch)	1000	TE