

Power Battery Packs Protection Series

PB01 Series

Description

- Design for power battery packs overload and short circuit protection
- Surface mount design to save space
- Ceramic Square body with Silver plated end cap
- Designed to UL248-1
- Fully compatible with lead-free solder and high temperature profile associated with lead-free assembly



Electrical Characteristics

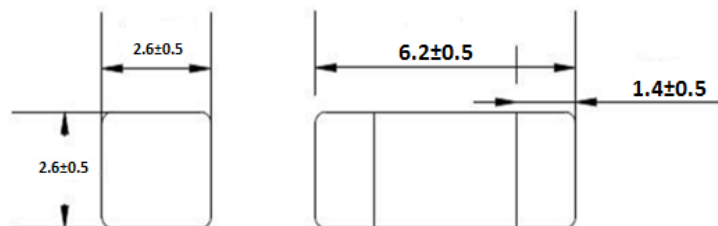
Electrical Characteristics	
1.0In	4 hour min.
2.0In	<60s

Specifications

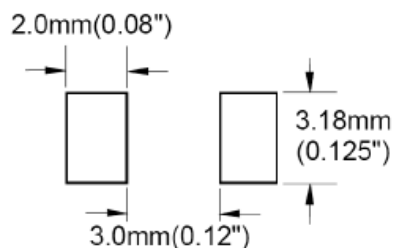
Specification							
Part No.	Dimensions	DC Rated Voltage (V)	Rated Current (A)	Breaking Capacity	Typ. Cold Resistance (mΩ)	Typ. Voltage drop (mV)	Typical Pre-Arcing I ² t (A ² Sec) *
PB01020	2410	72	20	500A@72VDC	2.3	60	210
PB01025	2410	72	25		1.7	55	400
PB01030	2410	72	30		1.2	50	900
PB01040	2410	63	40	500A@63VDC	0.9	50	1600

*Typical Pre-arcing I²t are measured at 10In Current.

Dimension (mm)



Recommended Pad Layout :



Note: Minimum copper layer thickness = 100um.

Recommend solder thickness is 0.15mm.

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Soldering Characteristics

Wave Immersion

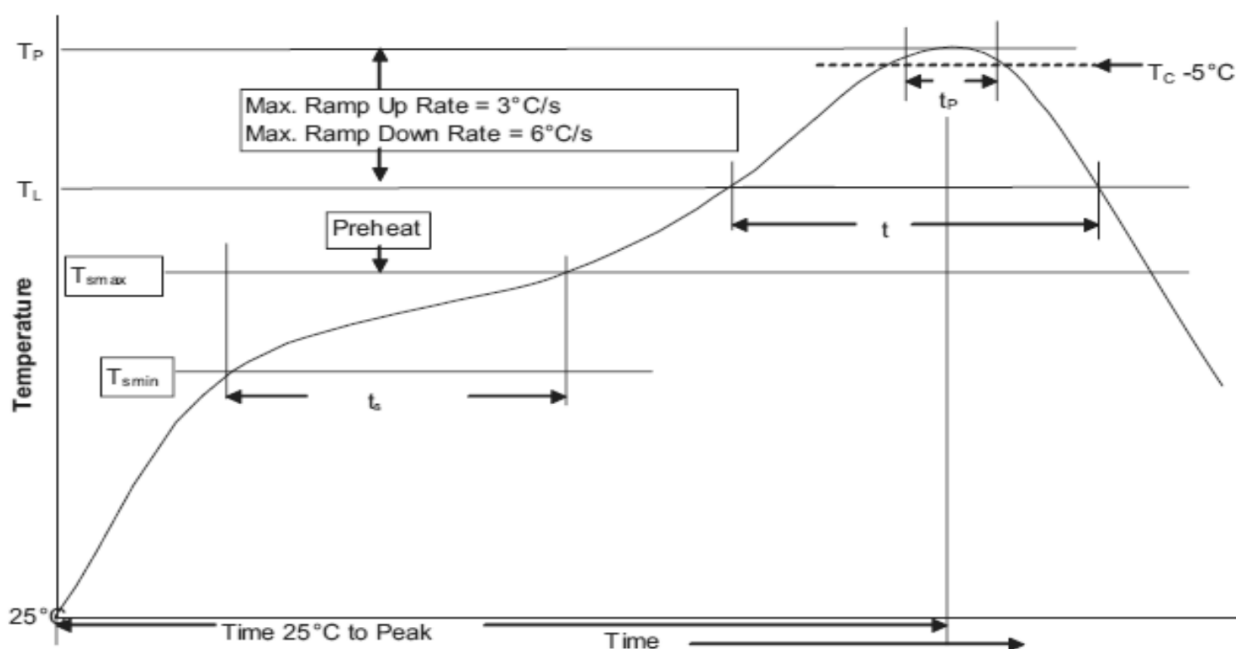
- Reservoir Temperature: 260° C
- Time in Reservoir : 10 Seconds Maximum

Infrared Reflow

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

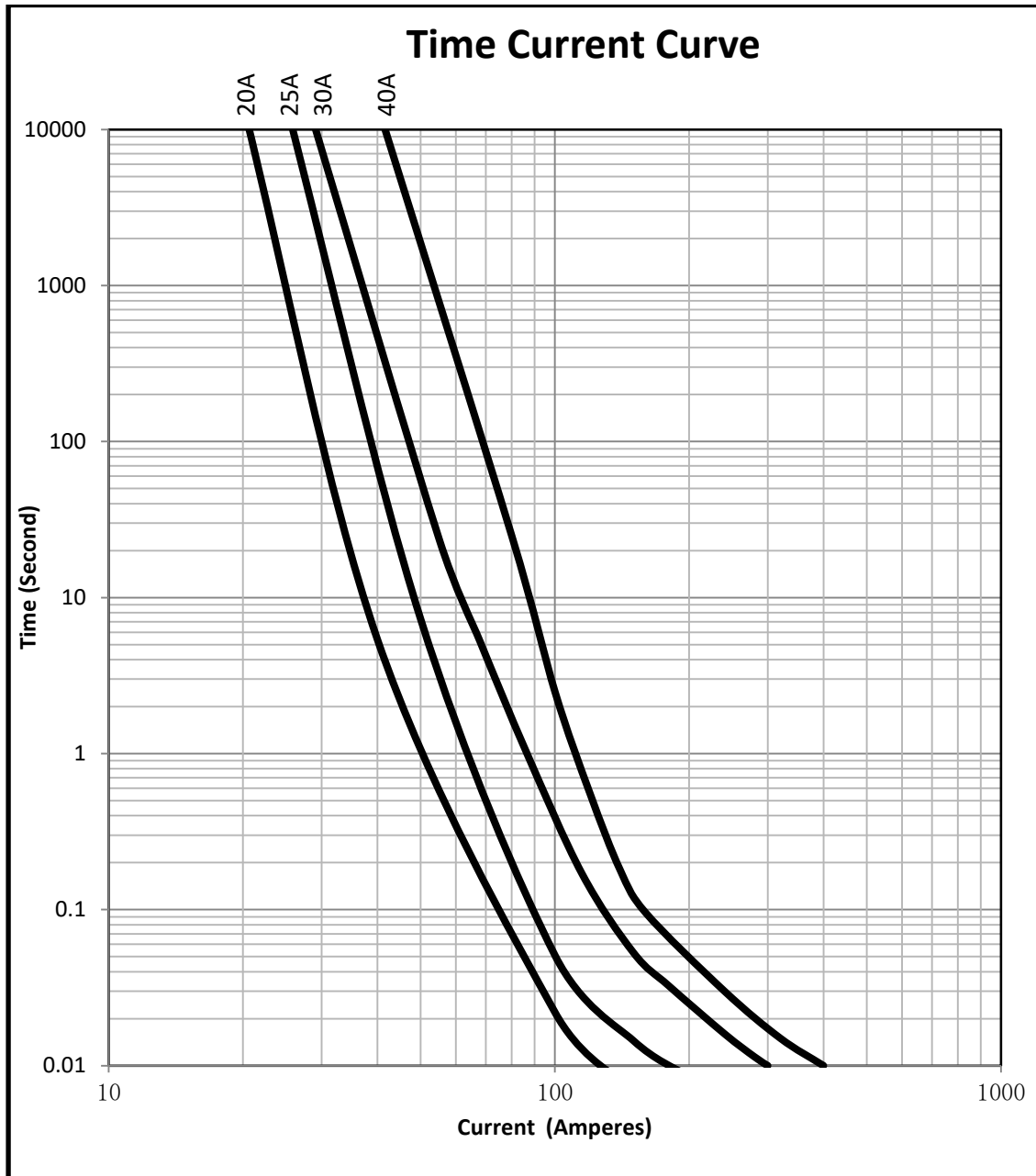
Hand Soldering (not recommended)

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



Profile Feature		Lead(Pb) free solder
Preheat and soak	• Temperature min.(T_{smin})	150°C
	• Temperature max. (T_{smax})	200°C
	• Time (T_{smin} to T_{smax}) (t_s)	60 - 120 Seconds
Average ramp up rate T_{smax} to T_P		3°C / 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°C / Second Max.
Time (25°C to Peak Temperature)		8 Minutes Max.

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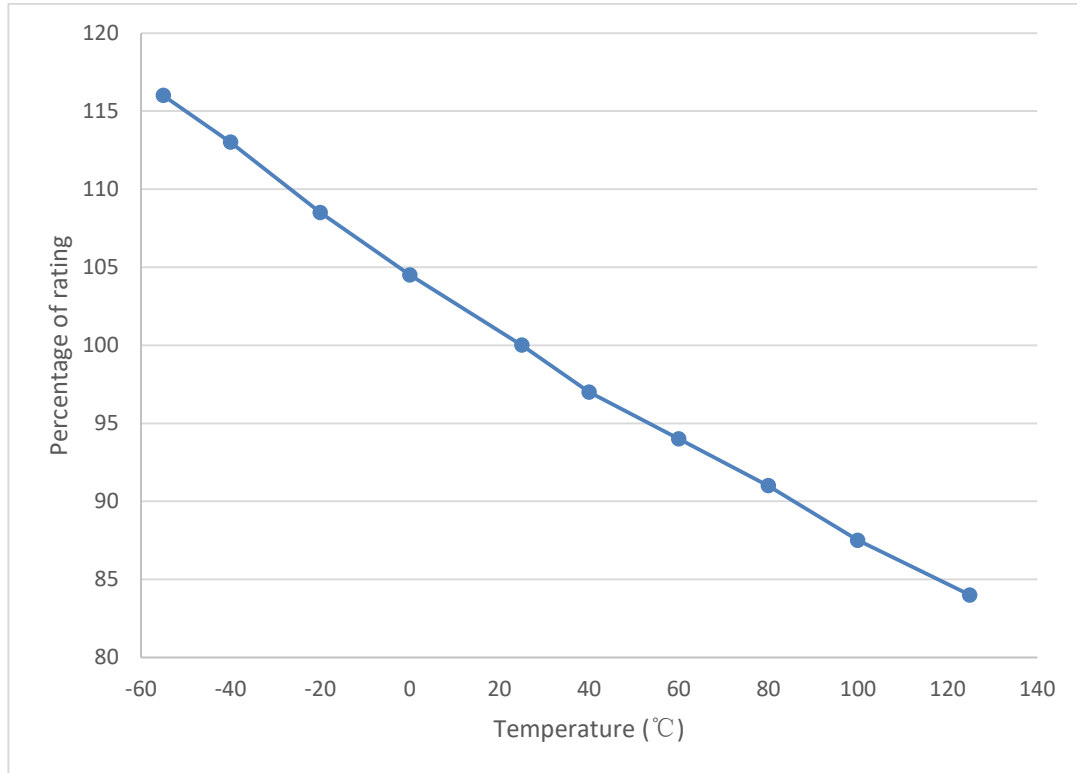
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Temperature Derating Curve

Normal Operating Temperature: 25°C ± 2°C

Operating Temperature: -55°C to 125°C with proper correction factor applied.

Chart of correction factor



Storage Temperature: -55°C to 125°C

Package and Minimum order QTY

1000pcs fuses in tape (width 12mm) and reel (dia. 7inch).

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