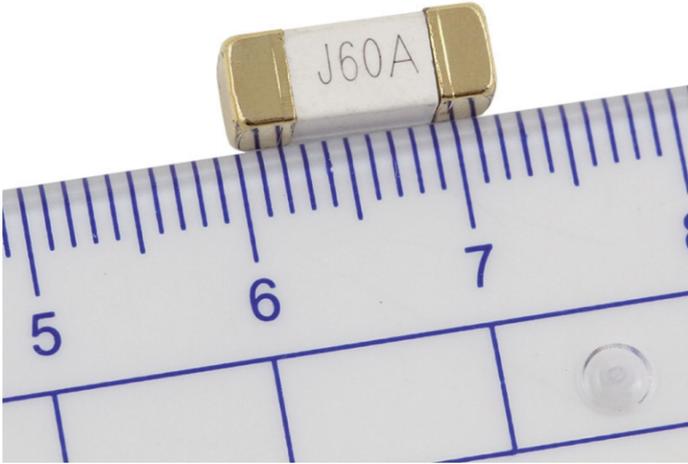


# LTC1245FS FAST ACTING FUSE

Surface Mount

Nano Fuse



## Description/描述

The LTC1245FS series fast acting square Surface Mount fuse are designed for high-end cloud computing servers, telecom base station power supplies, blockchain servers, and new energy vehicle battery management systems, RoHS compliant. Provide board level primary and secondary circuit protection in a wide variety of applications. With excellent inrush current withstanding capability, excellent reliability for thermal and mechanic shock, also have a high reliability and stable solder ability, end caps are available in gold/silver plated.

## Features/特征

- Fast acting
- High current rating available
- Low temperature de-rating
- Tape and Reel for automatic placement
- Small size(12.45mm\*4.5mm)
- Wide operating temperature range(-55°C to 125°C)
- RoHS compliant
- Conflict free metals
- Wide range of current rating available

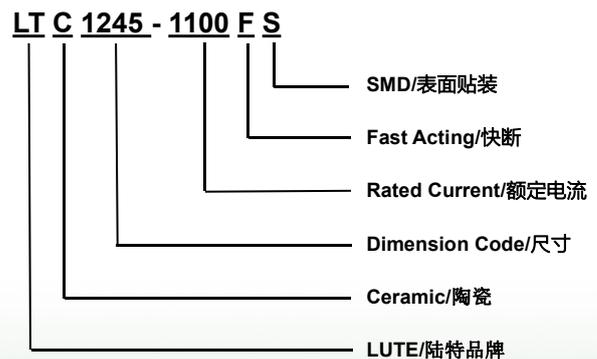
## Applications/应用

- LED lighting
- LCD backlight inverter
- PC server
- Wireless base station
- Digital camera
- Notebook PC
- Portable Devices
- Cooling fan system
- White goods
- Industrial equipment
- Battery devices
- Power supply
- Storage system
- Game console
- Medical equipment
- LCD/PDP devices
- Networking devices
- Telecom system
- Office equipment
- Automotive devices

## Electrical Characteristics/电气特性

% of Ampere Rating	Opening Time at 25°C
100%	4 hours, Minimum
200%	120 seconds, Maximum

## Part Number System/产品编号

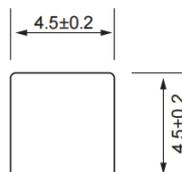
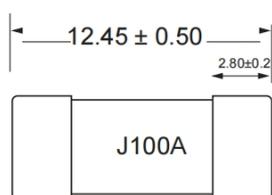


### Performance Specifications/电性参数

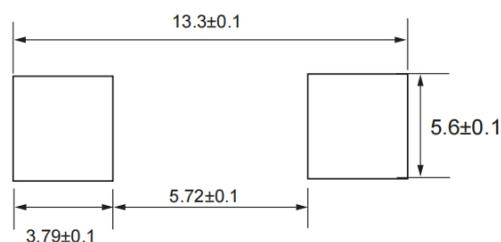
Part Number	Ampere Rating (A)	Max Voltage Rating (V)	Breaking Capacity	Nominal Cold Resistance (mΩ)	Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec)
LTC1245-1100FS	1.00	125VDC 250VAC	1KA@32VDC 500A@72VDC 300A@125VDC 100A@250VAC	75.0	0.87
LTC1245-1200FS	2.00			50.0	3.8
LTC1245-1500FS	5.00			18.0	23
LTC1245-2100FS	10.0			8.05	91
LTC1245-2150FS	15.0			4.50	203
LTC1245-2200FS	20.0			3.30	360
LTC1245-2250FS	25.0			2.25	563
LTC1245-2300FS	30.0			1.98	810
LTC1245-2400FS	40.0			1.20	1360
LTC1245-2500FS	50.0			0.99	1949
LTC1245-2600FS	60.0			0.79	2887
LTC1245-2800FS	80.0			0.55	5270
LTC1245-3100FS	100.0			0.33	8080

### Product Dimensions (mm)/产品尺寸

Unit : mm



Recommended pad layout



### Material Details/材料详情

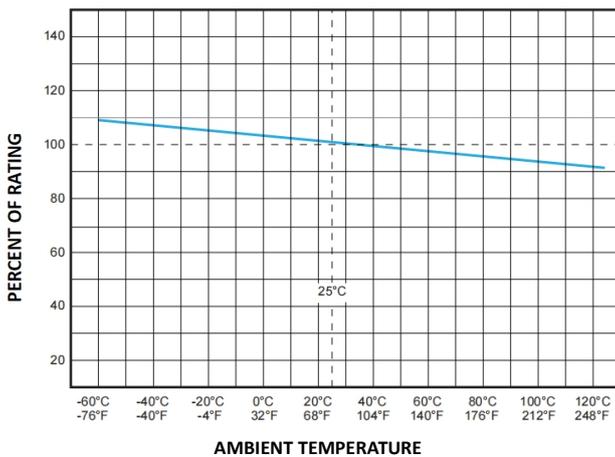
NO.	Part Name	Material
1	End Caps	Au Plated Brass Cap
2	Body	Non-Transparent Square Ceramic Tube
3	Fuse element	Cu-Ag/Tin Alloy wire

### Product Characteristics/产品特性

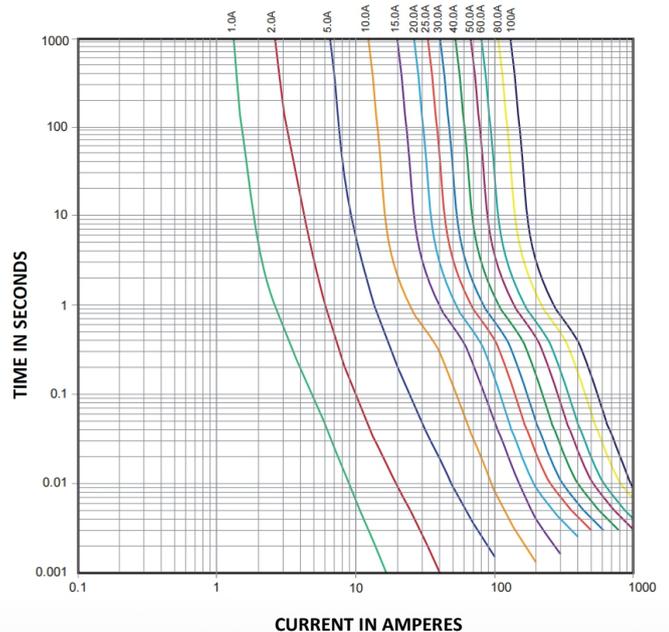
No.	Item	Contain	Reference Standard
1	Operating Temperature	-55° C to + 125° C	55°C to 125°C with proper derating
2	Solderability	T=240°C±5°C,t=3sec±0.5sec, Coverage≥95%	MIL-STD-202, Method 208
3	Resistance to Soldering Heat	10 sec at 260°C	MIL-STD-202, Method 210, Test Condition B
4	Insulating Resistance (after Opening)	10,000 ohms minimum	MIL-STD-202, Method 302, Test Condition A
5	Thermal Shock	5 cycle, -65°C to +125°C, 15minutes at each extreme	MIL-STD-202, Method 107, Test Condition B
6	Mechanical Shock	100G 's peak for 6 milliseconds, 3cycles	MIL-STD-202, Method 213, Test Condition I
7	Vibration	0.03" amplitude, 10-55 Hz in 1min. 2hrs each XYZ=6hrs	MIL-STD-202, Method 201
8	Moisture Resistance	10 cycles	MIL-STD-202, Method 106
9	Salt Spray	5% salt solution, 48hrs	MIL-STD-202, Method 101, Test Condition B

### Environmental Characteristic/环境温度特性图

**Temperature Derating Curve**

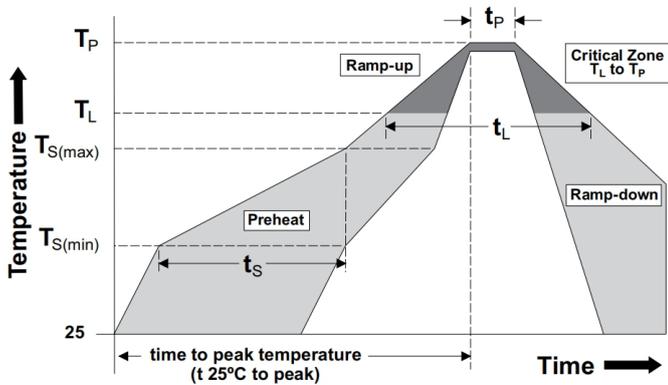


**Average Time-Current Curve**



- When choosing the fuse's specification, if the operating environmental temperature beyond the scope from 20-30°C, engineer should consider the environmental temperature's affection to fuse.

## Soldering Parameters/焊接参数



Soldering Method		Parameter
Wave/Reflow Solder	Reservoir Temperature	260°C
	Time in Reservoir	5 seconds max
Hand-solder	Temperature	300 ± 5°C
	Heating Time	1~2 seconds max

Profile Feature 特征	Pb-Free Assembly 无铅焊锡	
Average Ramp-Up Rate (Ts(max) to Tp) 平均升温速度	5°C/second max	
Preheat 预热	-Temperature Min(Ts(min)) 最低温度	150°C
	-Temperature Max(Ts(max)) 最高温度	200°C
	-Time(Ts(min) to Ts(max)) 预热时间	60~180 seconds
Reflow 回流焊	-Temperature(Tl) 温度	217°C
	-Time(tL) 时间	60~150 seconds
Peak Temperature (Tp) 峰值温度	260°C	
Ramp-Down Rate 降温	5°C/second max	
Time 25°C to Peak Temperature 从 25°C到峰值温度时间	8 minutes max	
Time within 5°C of actual peak Temperature (tP)	20-40 seconds	
Ts(max) to Tl-Ramp-up Rate	5°C/second max	
Do not exceed	260°C	

## Packing/包装

Part Number	Quantity & Packaging Code
LTC1245FS	1500 pcs/reel 24mm tape-and-reel on 13 inch (330mm) reel

### WARNING

- If in use beyond the requirements of the specifications, must pass through the mutual confirmation !
- If the specification is not appropriate, must through consultation between the two sides and by the company to modify !
- It could be in conformance with another file which made by our company.