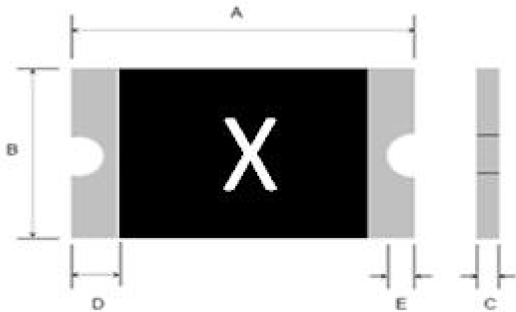
Leiditech

SMD0603P002TF/60

Surface Mountable PTC Resettable Fuse



Terminal pad materials :Tin-Plated Nickle-copper

Terminal pad solderability : Meets EIA specification RS 186-9E and ANSI/J-STD-002 Category 3.

Marking : Part identification X =002

Table1 :DIMENTION(Unit : mm)

Model	Marking	A		B		C		D	E
		Min.	Max.	Min.	Max.	Min.	Max	Min.	Max.
SMD0603P002TF/60	X	1.45	1.85	0.65	1.05	0.40	1.00	0.15	0.40

Table2 :PERFORMANCE RATINGS:

Model	Marking	V_{max} (Vdc)	I_{max} (A)	I_{hold} @25℃ (A)	I_{trip} @25℃ (A)	P_d Typ (W)	Maximum Time To Trip		Resistance	
							Current (A)	Time (Sec)	$R1_{min}$ (Ω)	$R1_{max}$ (Ω)
SMD0603P002TF/60	X	60.0	40	0.02	0.06	0.50	0.2	1.00	12.0	70.000

Table3:Test Conditons and Standards

Item	Test Conditon	Standard
Initial Resistance	25℃	12.00～70.000Ω
I_H	25℃，0.02A，60min	No Trip
Ttrip	25℃，0.2A	≤1.0S
Trip endurance	60V，40A，60min	No arcing or burning

Operating Temperature：-40℃ TO 85℃
Packaging：Bulk ,4000pcs per bag

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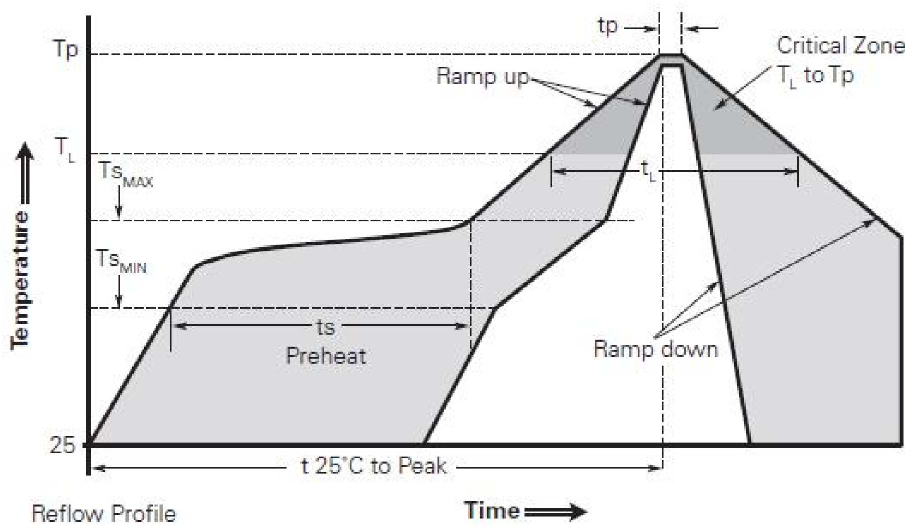
Solder reflow conditions



Profile Feature	Pb-Free Assembly
Average ramp up rate (Ts_{MAX} to Tp)	3°C/second max.
Preheat	
• Temperature min. (Ts_{MIN})	150°C
• Temperature max. (Ts_{MAX})	200°C
• Time (ts_{MIN} to ts_{MAX})	60-120 seconds
Time maintained above:	
• Temperature (T_L)	217°C
• Time (t_L)	60-150 seconds
Peak/Classification temperature (Tp)	260°C
Time within 5°C of actual peak temperature	
Time (tp)	30 seconds max.
Ramp down rate	3°C/second max.
Time 25°C to peak temperature	8 minutes max.

Note: All temperatures refer to topside of the package, measured on the package body surface.

- Recommended reflow methods: IR, vapor phase oven, hot air oven, N2 environment for lead-free.
- Devices are not designed to be wave soldered to the bottom side of the board.
- Recommended maximum paste thickness is 0.25mm (0.010inch).
- Devices can be cleaned using standard industry methods and solvents.
- Soldering temprature profile meets RoHs leadfree process.

Notes: If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements

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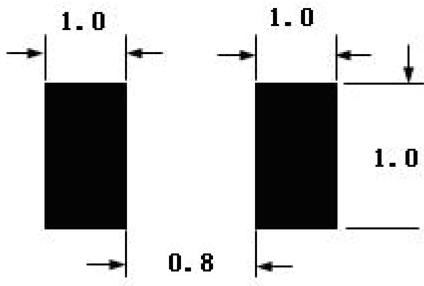
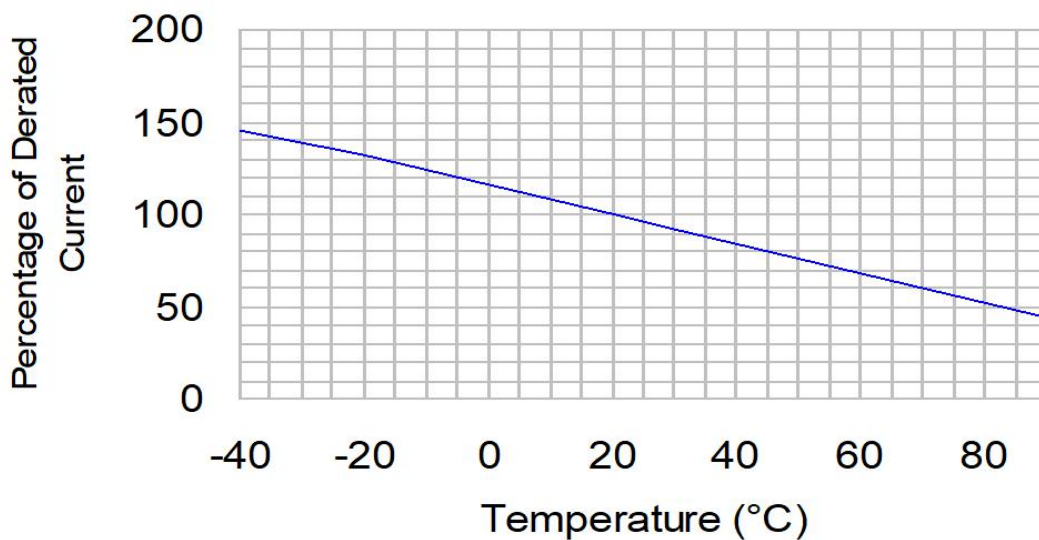
Recommended pad layout (mm)





WARNING

· Use PPTC beyond the maximum ratings or improper use may result in device damage and possible electrical arcing and flame.

· PPTC are intended for protection against occasional over current or over temperature fault conditions and should not be used when repeated fault conditions or prolonged trip events are anticipated.

· Device performance can be impacted negatively if devices are handled in a manner inconsistent with recommended electronic, thermal, and mechanical procedures for electronic components.

· Use PPTC with a large inductance in circuit will generate a circuit voltage (L di/dt) above the rated voltage of the PPTC.

· Avoid impact PPTC device its thermal expansion like placed under pressure or installed in limited space.

· Contamination of the PPTC material with certain silicon based oils or some aggressive solvents can adversely impact the performance of the devices.PPTC SMD can be cleaned by standard methods.

· Requests that customers comply with our recommended solder pad layouts and recommended reflow profile. Improper board layouts or reflow profilecould negatively impact solderability performance of our devices.

Shanghai Leiditech Electronic Co.,Ltd
Email: sale1@leiditech.com
Tel : +86- 021 50828806
Fax : +86- 021 50477059

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