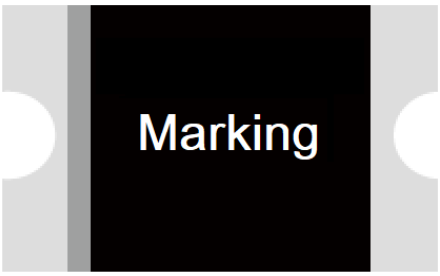
Product Features: Small surface mountable, Solid state, Faster time to trip than standard SMD devices, Lower resistance than standard SMD devices
Operation Current: 0.25A~1.00A
Maximum Voltage: $6V_{DC}$~$9V_{DC}$
Temperature Range : -40℃ to 85℃
Applications: All high-density boards



Electrical Characteristics (23℃)

Part Number	Hold Current	Trip Current	Rated Voltage	Max Current	Typical Power	Max Time to Trip		Resistance	
						Current	Time	R_{MIN}	$R1_{MAX}$
	I_H, A	I_T, A	V_{MAX},V_{DC}	I_{MAX}, A	Pd, W	A	Sec	Ohms	Ohms
F0603L025SL-09	0.25	0.55	9	100	0.5	8.0	0.08	0.500	3.000
F0603L035SL-06	0.35	0.75	6	100	0.5	8.0	0.10	0.200	1.000
F0603L050SL-06	0.50	1.00	6	100	0.6	8.0	0.10	0.070	0.350
F0603L075SL-06	0.75	1.50	6	100	0.6	8.0	0.20	0.050	0.250
F0603L100SL-06	1.00	1.80	6	100	0.6	8.0	0.30	0.040	0.120

Thermal Derating for PPTC Device at Various Ambient Temperatures

Temperatures	-40℃	-20℃	0℃	23℃	30℃	40℃	50℃	60℃	70℃	85℃
Current Derating %	145%	130%	115%	100%	92%	84%	77%	69%	61%	50%

Typical Time-To-Trip at 23℃

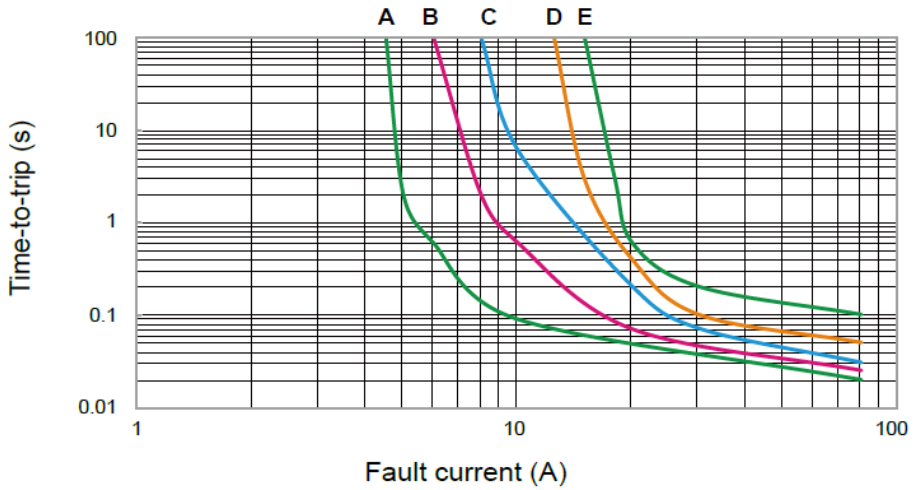
A = F0603L025SL-09

B = F0603L035SL-06

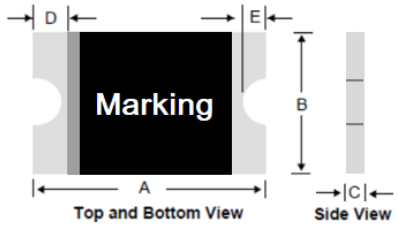
C = F0603L050SL-06

D = F0603L075SL-06

E = F0603L100SL-06



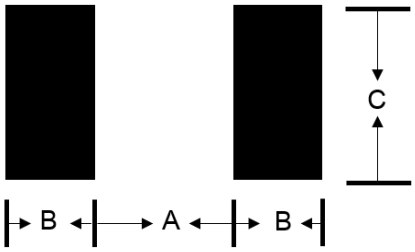
Product Dimensions (Millimeters)



Part Number	A		B		C		D		E	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
F0603L025SL-09	1.40	1.80	0.45	1.00	0.30	0.70	0.10	0.50	0.08	0.40
F0603L035SL-06	1.40	1.80	0.45	1.00	0.30	0.70	0.10	0.50	0.08	0.40
F0603L050SL-06	1.40	1.80	0.45	1.00	0.30	0.70	0.10	0.50	0.08	0.40
F0603L075SL-06	1.40	1.80	0.45	1.00	0.30	0.70	0.10	0.50	0.08	0.40
F0603L100SL-06	1.40	1.80	0.45	1.00	0.30	0.70	0.10	0.50	0.08	0.40

Pad Layouts、Solder Reflow and Rework Recommendations

The dimension in the table below provide the recommended pad layout for each F0603L device



Pad dimensions (millimeters)			
Device	A Nominal	B Nominal	C Nominal
All F0603L Series	0.80	0.60	0.80

Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate (Tsmax to Tp)	3℃/second max.
Preheat: Temperature Min (Tsmin) Temperature Max Tsmax) Time (t_S Tsmin to Tsmax)	 150℃ 200℃ 60~180 seconds
Time maintained above: Temperature(T_L) Time (t_L)	 217℃ 60~150 seconds
Peak/Classification Temperature(Tp):	260℃
Time within 5℃ of actual Peak: Temperature (tp)	 20~40 seconds
Ramp-Down Rate:	6℃/second max.
Time 25℃ to Peak Temperature:	8 minutes max.

Note 1: All temperatures refer to of the package, measured on the package body surface.

Solder reflow

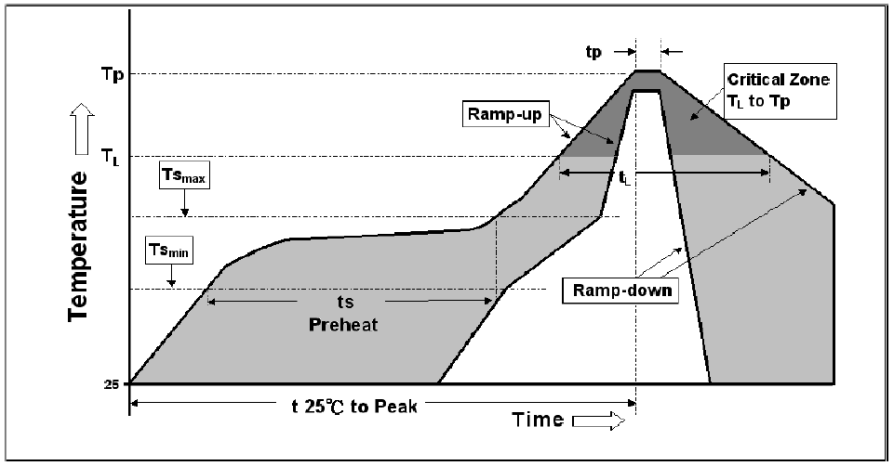
※ Due to “Lead Free” nature, Temperature and Dwelling time for the soldering zone is higher than those for Regular. This may cause damage to other components.

1. Recommended max past thickness > 0.25mm.
2. Devices can be cleaned using standard methods and aqueous solvent.
3. Rework use standard industry practices.
4. Storage Environment: < 30℃ / 60%RH

Caution:

1. If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.
2. Devices are not designed to be wave soldered to the bottom side of the board.

Reflow Profile



NOTE: Specification subject to change without notice.