

# KT15-0500SMDIII

Surface-Mount Resistance PTC Device  
 Rev Letter: A/1  
 Rev Date: 2018-6-13



## Feature

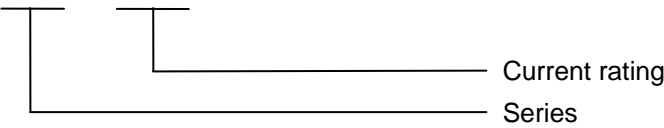
- Resettable overcurrent protection
- ROHS compliant
- Small size of 1206
- Fast time-to-trip
- Small footprint
- ROHS compliant and Halogen free

## Application

- Mobile phone battery packs
- Cordless phone battery packs
- Mobile radio packs
- Computer battery packs
- Camcorder battery packs
- PDA battery packs

## Part Number

KT15 - 0500 SMDIII



## Typical Ratings and Characteristics

- Maximum Operating Voltage: 15Vdc
- Maximum Interrupt Current: 40A

HOLD CURRENT & TRIP CURRENT (AMPS)						TIME-TO-TRIP (SECONDS)	REFERENCE RESISTANCE (OHMS)	TWO HOURS POST REFLOW RESISTANCE (OHMS)	TRIPPED STATE POWER DISSIPATION (WATTS)
0°C		25°C		60°C		25°C, 8A	25°C	25°C	25°C, 15V
HOLD	TRIP	HOLD	TRIP	HOLD	TRIP	MAX	MIN	MAX	MAX
0.58	1.16	0.5	1.0	0.36	0.72	0.1	0.150	0.750	1.5

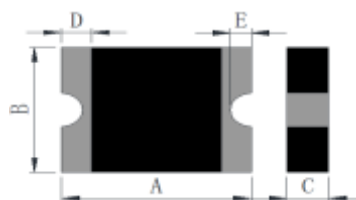
\*The max resistance of two-hours post reflow is a reference value. The value maybe changes a little according to reflow conditions and soldering state.

## Thermal Derating [Hold Current (A) at Ambient Temperature(°C)]

	-40°C	-20°C	0°C	20°C	25°C	45°C	50°C	60°C	70°C	85°C
$I_{hold}$	0.80	0.65	0.58	0.53	0.50	0.45	0.42	0.36	0.33	0.25
$I_{trip}$	1.60	1.30	1.16	1.06	1.00	0.90	0.84	0.72	0.66	0.50

## Product Dimension and Foot Print

A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
Max	Max	Max	Min	Min
3.45	1.8	1.0	0.25	0.1

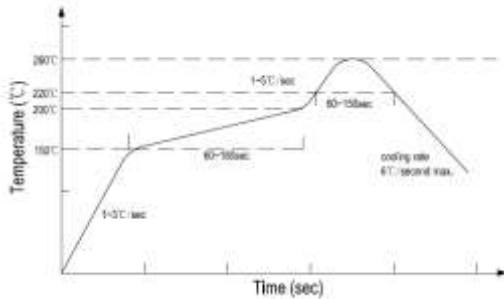


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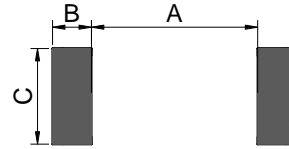
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## Solder Reflow Recommendation



Reflow -curve



footprint(mm)

- \* Recommended reflow methods: IR, hot air oven, nitrogen oven
- \* Recommended maximum paste thickness: 0.25mm (0.010 inch)
- \* Devices can be cleaned using standard industry methods and solvents.
- \* Solder temperature and time should be controlled strictly in recommended conditions.

**Note:**

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

**Caution:** Operation beyond the rated voltage or current may result in rupture electrical arcing or flame

## Packaging and Marking Information

Part number	Tape & Reel		Part Marking	Recommended Pad Layout Figures(mm)		
	Quantity	Tape spc code		Dimension A	Dimension B	Dimension C
KT15-05000SMDIII	4000	1206	K50	1.80	1.00	1.80



**WARNING:**

- Operation beyond the maximum ratings or improper use may result in device damage and possible electrical arcing and flame.
- The devices are intended for protection against occasional overcurrent or over-temperature fault conditions and should not be used when repeated fault conditions or prolonged trip events are anticipated.
- Contamination of the PPTC material with certain silicon based oils or some aggressive solvents can adversely impact the performance of the devices.
- Device performance can be impacted negatively if devices are handled in a manner inconsistent with recommended electronic, thermal and mechanical procedures for electronic components.
- Operation in circuit with a large inductance can generate a circuit voltage (L di/dt) above the rated voltage of the PPTC device.

<b>Prepare</b>	<b>Audit</b>	<b>Approve</b>