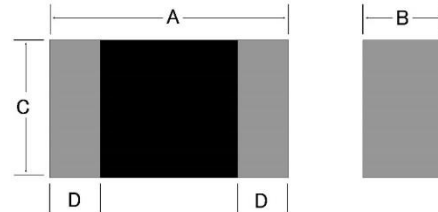


**Specification Status: Released**

**MAXIMUM ELECTRICAL RATING**

Voltage: 13V<sub>DC</sub>  
I<sub>max</sub>: 82mA



**Notes:**

- Termination Finish: NiAu
- Drawing not to scale
- Marking: N/A



**PRODUCT DIMENSIONS:**

	A		B	C		D	
	MIN	MAX	MAX	MIN	MAX	MIN	MAX
mm:	0.55	0.65	0.40	0.40	0.50	0.10	0.25
in:	(0.022)	(0.026)	(0.016)	(0.016)	(0.020)	(0.004)	(0.010)

**PERFORMANCE RATINGS:**

INITIAL RESISTANCE		POST PROCESS RESISTANCE*		TIME TO TRIP**	TRIP TEMPERATURE	HOLD CURRENT**
ohms@25°C		ohms@-20°C		ms@80mA	°C	mA
MIN	MAX	MIN	MAX	MAX	TYP	@25°C
10	80	68	290	20	125	11

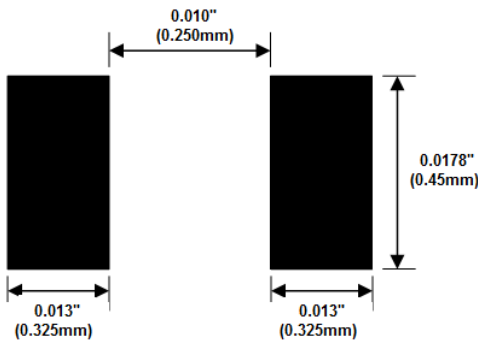
\* With LOCTITE ECCOBOND UF 3915, curing condition: 140degC/20mins, resistance is measured 12hours post coating curing process

\*\* Values specified were determined using PCB's with 0.004"X1.0ounce copper traces

Precedence: This specification takes precedence over documents referenced herein.  
Effectivity: Reference documents shall be the issue in effect on the date of invitation for bid.

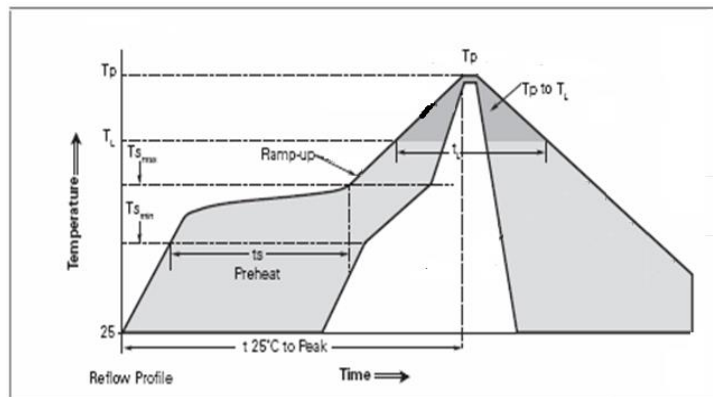
**SOLDER REFLOW RECOMMENDATIONS:**

Recommended pad layout



Recommended reflow profile

Profile Feature	Pb-Free Assembly
<b>Peak/Classification temperature (Tp)</b>	240°C
<b>Preheat</b>	
• Temperature min. (T <sub>Smin</sub> )	130°C
• Temperature max. (T <sub>Smax</sub> )	180°C
• Time (t <sub>Smin</sub> to t <sub>Smax</sub> )	90-110s
<b>Time maintained above:</b>	
• Temperature (T <sub>L</sub> )	217°C
• Time (t <sub>L</sub> )	60-70s
<b>Ramp time</b>	35~45s
<b>Time 25°C to peak temperature</b>	300s max.
<b>Ramp down rate</b>	2~4°C/s
<b>Maximum ramp up rate (T<sub>Smax</sub> to T<sub>L</sub>)</b>	≅ 2°C/s
<b>Dry Zone Rate</b>	1~3°C/s
<b>Time within 3°C of actual peak temperature (tp)</b>	35s



**Notes:**

- All temperature refers to topside of the package, measured on the package body surface.
- If reflow temperature exceeds the recommended profile, devices may not meet the performance requirements.
- Recommended reflow methods: IR, vapor phase oven, hot air oven.
- Customer should validate that the solder paste amount and reflow recommendations to meet its application.
- Devices can be cleaned using standard industry methods and aqueous solvents.
- Devices can be reworked using the standard industry practices (Avoid contact to the device).

**OPERATION AND STORAGE CONDITION:**

Operation temperature range: -20°C to 60°C

Recommended storage condition: 40°C max, 70% R.H. max; Devices may not meet specified ratings if recommended storage conditions are exceeded.



Expertise Applied | Answers Delivered

# PolySwitch® PTC Devices

Overcurrent (over-temperature)  
Protection Device

PRODUCT: zeptoSMDC0011F

DOCUMENT: SCD29564  
REV LETTER: A  
REV DATE: APRIL 8, 2020  
PAGE NO.: 3 OF 3

## MATERIALS INFORMATION:

### ROHS Compliant

Directive 2011/65/EU  
Compliant

### ELV Compliant

Directive 2002/95/EC  
Compliant

### Pb-Free



### Halogen Free\*



\* Halogen Free refers to: Br≤900ppm, Cl≤900ppm, Br+Cl≤1500ppm.

## WARNING:

- Electrical performance of the device can differ according to installation conditions. Users should independently evaluate the suitability of the device under the actual application conditions.
- Operation beyond maximum ratings may result in device damage.
- Exposure to silicon-based oils, solvents, electrolytes, acids, or similar materials can adversely affect device performance.
- The device undergoes thermal expansion during fault conditions. It should be provided with adequate space to allow expansion and should be protected against mechanical stress
- Consult with Littelfuse if the device will experience thermal process other than reflow onto PCB board, such as molding or hand soldering.

Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and shall not be used for, any purpose (including, without limitation, military, aerospace, medical, life-saving, life-sustaining or nuclear facility applications, devices intended for surgical implant into the body, or any other application in which the failure or lack of desired operation of the product may result in personal injury, death, or property damage) other than those expressly set forth in applicable Littelfuse product documentation. Warranties granted by Littelfuse shall be deemed void for products used for any purpose not expressly set forth in applicable Littelfuse documentation. Littelfuse shall not be liable for any claims or damages arising out of products used in applications not expressly intended by Littelfuse as set forth in applicable Littelfuse documentation. The sale and use of Littelfuse products is subject to Littelfuse Terms and Conditions of Sale, unless otherwise agreed by Littelfuse.