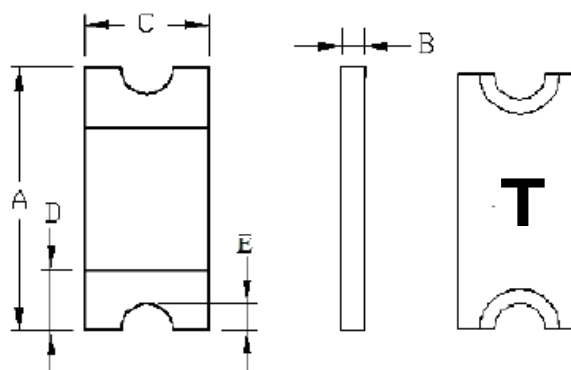


## Specification Status: Preliminary

### FEATURES:

- Designed for chargers with captive cables
- No IR loss contribution
- Full USB-PD capability
- Compact footprint



Marking: T

### PRODUCT DIMENSIONS:

	A		B		C		D		E
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MAX
mm:	2.00	2.20	0.43	0.60	1.30	2.00	0.43	2.20	0.69
in:	(0.079)	(0.087)	(0.017)	(0.024)	(0.051)	(0.079)	(0.017)	(0.087)	(0.027)

### THERMAL PERFORMANCE RATINGS:

TRIP TEMPERATURE		RESISTANCE POST REFLOW	CURRENT LIMITS
T <sub>trip</sub> * @35kΩ		R <sub>0</sub> **	I <sub>hold</sub>
°C		ohms@25°C	mA@55°C
MIN	MAX	MAX	MIN
90	110	12.0	1

\* Temperature when device resistance increases to 35kΩ.

\*\*Resistance is measured 1 hour after reflow.

### ELECTRICAL PERFORMANCE RATINGS:

I <sub>hold</sub> (A)	I <sub>trip</sub> (A)	V <sub>max</sub> (Vdc)	I <sub>max</sub> (A)	P <sub>d</sub> typ. (W)	Maximum Time to Trip		Resistance	
					Current (A)	Time (Sec.)	R <sub>min</sub> (Ω)	R <sub>max</sub> (Ω)
0.06	0.25	6	1	0.6	0.3	1	0.5	12

### ENVIROMENTAL SPECIFICATIONS:

Test Items	Method/Condition
Humidity Aging	60°C, 90% RH, 1000hrs
Passive Aging	-40°C, 1000hrs
Passive Aging	70°C, 1000hrs
Thermal Shock	-40°C to +85°C, 10Cycles
Vibration	MIL-STD-883, Method 2007, Condition A

Agency Recognition: UL  
Reference Document: PS300  
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.

## MATERIALS INFORMATION

### ROHS Compliant

Directive 2002/95/EC  
Compliant

### ELV Compliant

Directive 2000/53/EC  
Compliant

### Pb-Free



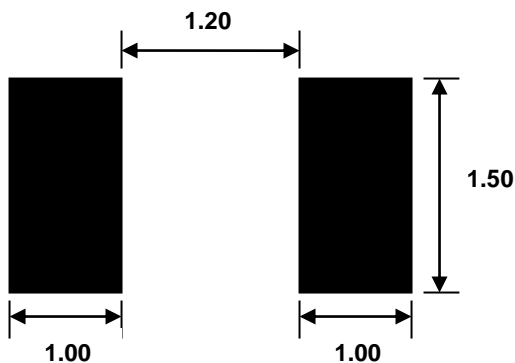
### Halogen Free\*



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

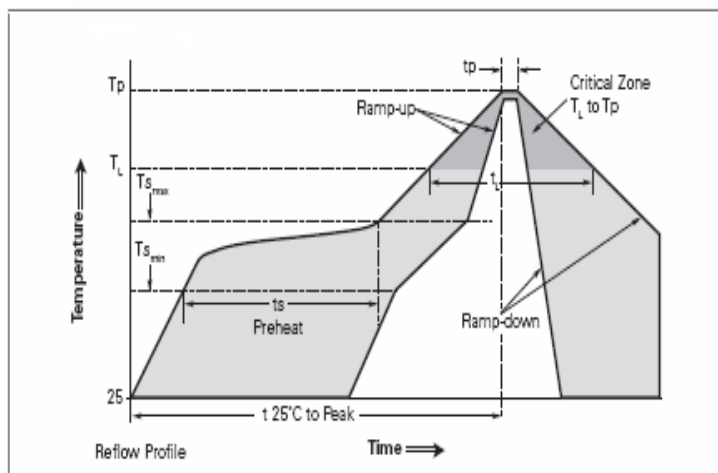
## SOLDER REFLOW RECOMMENDATIONS:

Recommended pad layout (mm.)



Recommended reflow profile

Profile Feature	Pb-Free Assembly
<b>Average ramp up rate (<math>T_{s_{max}}</math> to <math>T_p</math>)</b>	3°C/s max.
<b>Preheat</b>	
• Temperature min. ( $T_{s_{min}}$ )	150°C
• Temperature max. ( $T_{s_{max}}$ )	200°C
• Time ( $t_{s_{min}}$ to $t_{s_{max}}$ )	60-120s
<b>Time maintained above:</b>	
• Temperature ( $T_L$ )	217°C
• Time ( $t_L$ )	60-150s
<b>Peak/Classification temperature (<math>T_p</math>)</b>	260°C
<b>Time within 5°C of actual peak temperature (<math>t_p</math>)</b>	30s max.
<b>Ramp down rate</b>	2°C/s max.
<b>Time 25°C to peak temperature</b>	8 mins max.



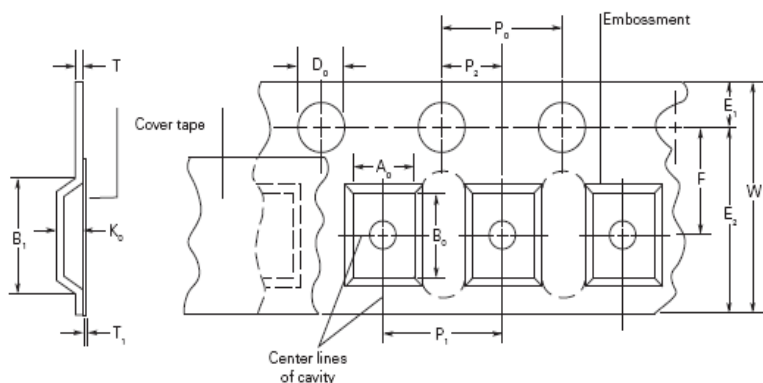
### Notes:

- 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.

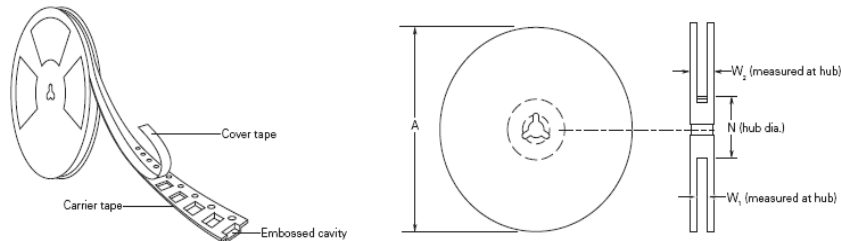
- Recommended reflow methods: IR, vapor phase oven, hot air oven, N2 environment.
- Recommended maximum paste thickness is 0.25mm (0.010 inch).
- Devices can be cleaned using standard industry methods and aqueous solvents.
- Devices can be reworked using the standard industry practices (Avoid contact to the device).

## PACKAGING INFORMATION:

### Tape specification



### Reel dimensions



Description	EIA 481-1 (mm)
W	8.0 ± 0.30
P <sub>0</sub>	4.0 ± 0.10
P <sub>1</sub>	4.0 ± 0.10
P <sub>2</sub>	2.0 ± 0.05
A <sub>0</sub>	1.70 ± 0.10
B <sub>0</sub>	2.45 ± 0.10
B <sub>1</sub> max.	4.35
D <sub>0</sub>	1.55 ± 0.05
F	3.50 ± 0.05

Description	EIA 481-1 (mm)
E <sub>1</sub>	1.75 ± 0.10
E <sub>2</sub> min.	6.25
T max.	0.3
T <sub>1</sub> max.	0.1
K <sub>0</sub>	0.86 ± 0.10
Amax	179
Nmin	53.5
W1	9.5 ± 0.5
W2max	15

**Standard Pack Quantity: 4,000pcs, Minimum Order Quantity: 20,000pcs**



Expertise Applied | Answers Delivered

# PolySwitch® setP™ Devices Temperature Indicator

**PRODUCT: SETP0805-100-SE**

DOCUMENT: SCD29334  
REV LETTER: B  
REV DATE: AUGUST 10, 2018  
PAGE NO.: 4 OF 4

## **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.

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