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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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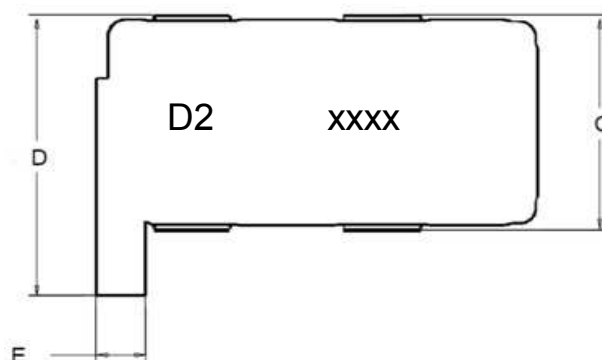
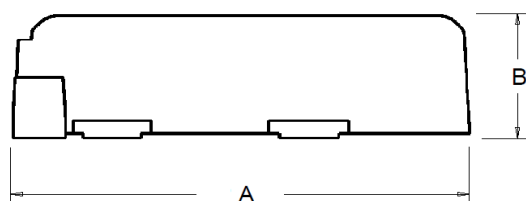
High Current Reflowable Thermal Protection Device

PRODUCT: RTP200HR010SA

DOCUMENT: SCD28246
REV LETTER: B
REV DATE: JANUARY 16, 2014
PAGE NO.: 1 OF 5

Specification Status: Released

PIN CONFIGURATION AND DESCRIPTION:



Note: D2 is product code
xxxx is Batch code

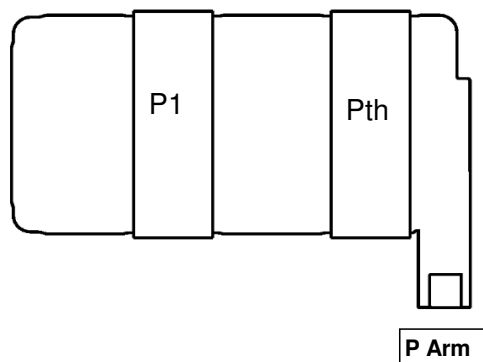


TABLE 1. DIMENSIONS:

	A		B		C		D		E	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
mm	11.35	11.85	3.00	3.70	5.70	6.40	7.90	8.40	1.30	1.60
in:	(0.447)	(0.467)	(0.118)	(0.146)	(0.224)	(0.252)	(0.311)	(0.331)	(0.051)	(0.063)

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TABLE 2. ABSOLUTE MAX RATINGS:

Absolute Max Ratings	Max	Units	Conditions
Max DC Open Voltage ¹	16	V _{DC}	
Max DC Interrupt Current ¹	500	A	@ 16 VDC
ESD rating (Human Body Model)	25	KV	
Max Reflow Temperature (pre-arming)	260	°C	
Operating temperature limits, Junction (Pth) and Storage Temperature	-55 150	°C	
	175	°C	10A, 100 h

1. Performance capability at these conditions can be influenced by board design. Performance should be verified in the user's system.

TABLE 3. PERFORMANCE CHARACTERISTICS (Typical unless otherwise specified):

Resistance and Open Characteristics P ₁ to P _{TH}		Min	Typ	Max	Units
R _{PP} (Resistance from P ₁ to P _{TH})	@ 23+/-3°C @ 150+/-3°C		100 150	150 250	μΩ
Operating Voltage			16		V _{DC}
Open Temperature, post-arming	I _{PP} = 0	202	210	218	°C
Installation dependent Operating Current, post-arming ²	@ 23+/-3°C @ 140+/-3°C	90 45			A
Moisture Sensitivity Level Rating ³			1		

2. Results obtained on 44.4mm x 57.2mm x 1.6mm of 2-sided FR4 board T4350 with 4.0 oz Copper trace.
RTP device pad connection of:
 - 283 sq. mm 4.0 oz copper heat spreader connected to I P1 pad.
 - 237 sq. mm 4.0 oz copper heat spreader connected to I PTH pad.
 Results are highly installation-dependent. Users should confirm for their own applications.
3. As per JEDEC J-STD-020C

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TABLE 4. ARMING CHARACTERISTICS:

Arming Characteristics ARM		Min	Typ	Max	Units
Arming Type		Electronically Armed			
R _{ARM} (Resistance from ARM to P ₁ or P _{TH})	Pre-Arming		500		mΩ
	Post-Arming	10			KΩ
Arming Current (I _{ARM}) ⁴	@ 23 +/-3°C	2		5	A
Arming Time (@23 +/-3°C) ⁴	@ 2A		0.020		Sec
	@ 5A		0.005		

4. Results obtained on 44.4mm x 57.2mm x 1.6mm of 2-sided FR4 board T4350 with 4.0 oz Copper trace.

RTP device pad connection of:

- 283 sq. mm 4.0 oz copper heat spreader connected to I P₁ pad.
- 237 sq. mm 4.0 oz copper heat spreader connected to I P_{TH} pad.

Solder Reflow Recommendation:

Classification Reflow Profiles

Profile Feature Pb-Free Assembly

Average ramp up rate (T_S_{MAX} to T_p) 3°C/second max.

Preheat

- Temperature min. (T_S_{MIN}) 150°C
- Temperature max. (T_S_{MAX}) 200°C
- Time (t_S_{MIN} to t_S_{MAX}) 60-180 seconds

Time maintained above:

- Temperature (T_L) 217°C
- Time (t_L) 60-150 seconds

Peak/Classification temperature (T_p) 260°C

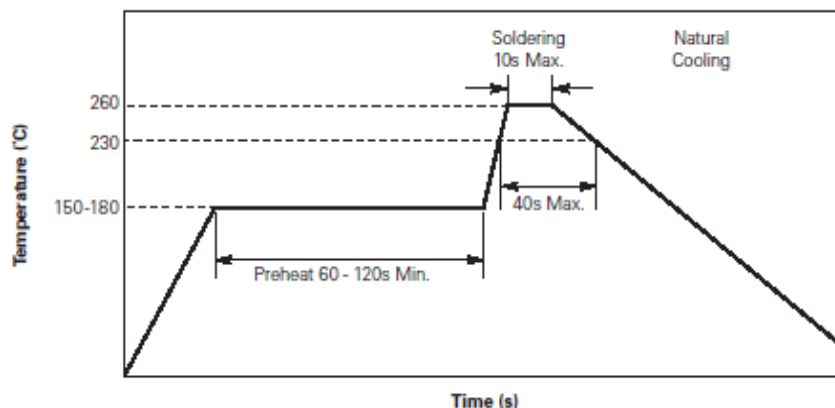
Time within 5°C of actual peak temperature

Time (t_p) 20-40 seconds

Ramp down rate 6°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.



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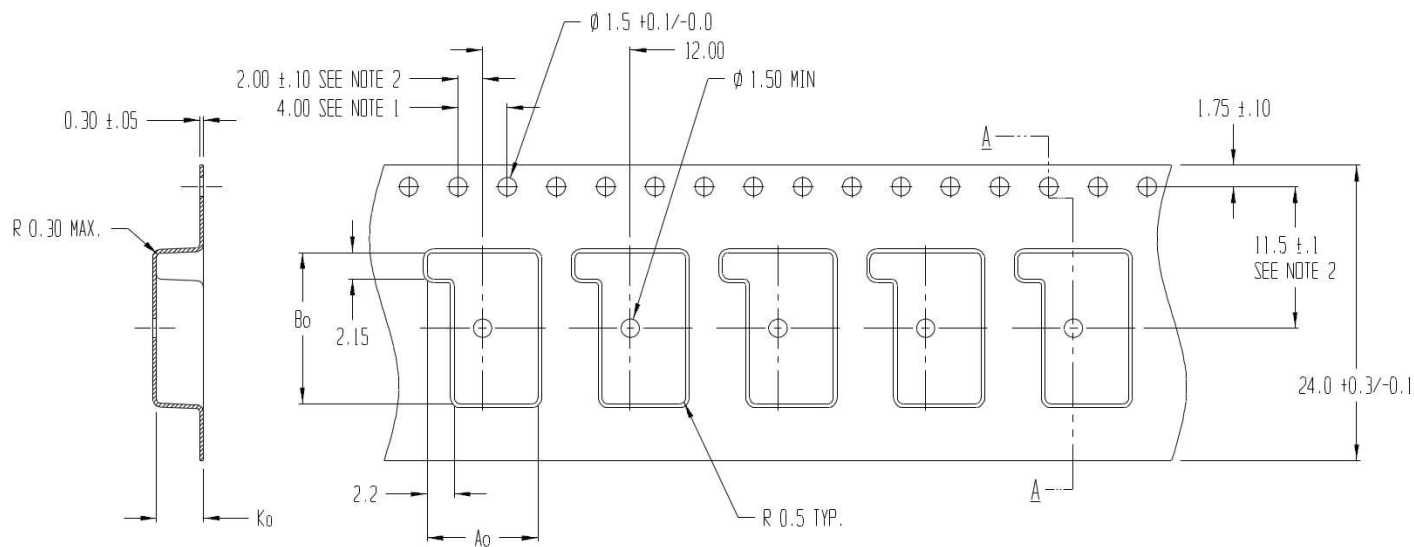
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Recommended Pad Layout (dimensions in mm):



Package Information (dimensions are in mm):



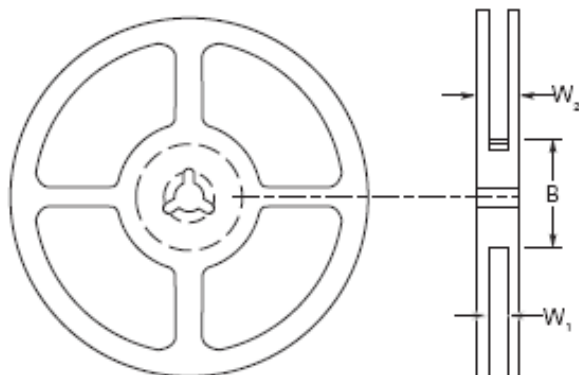
SECTION A - A

$Ao = 9.00$
 $Bo = 12.30$
 $Ko = 3.80$

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	B	W ₁	W ₂ Max
mm	102.0 ± 2.0	24	29
(inch)	(4.0 ± 0.079)	(0.945)	(1.14)

Precedence:
Effectivity:

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

Important Installation Instructions:

Note 1: RTP200HR010SA devices are to be board-mounted using only solder pastes referenced in Engineering Report: Q40213
Note 2: RTP200HR010SA devices are not compatible with conformal coating. If selective coatings are used, avoid covering the RTP200HR010SA device.

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.

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