SHIELDED SMD CHIP POWER INDUCTOR

ASPI-1367

14.0 x 12.9 x 6.7mm

Pb RoHS Compliant

FEATURES:

- 100%lead (Pb) free.
- Lowest DCR/uH, in this package size.
- Frequency range up to 5.0MHZ.
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction.

APPLICATIONS:

- PDA/Notebook/Desktop/Server applications.
- Low profile, high current power supplies.
- Battery powered devices.
- DC/DC converter for Field Programmable Gate Array(FPGA)

ELECTRICAL SPECIFICATIONS:

ABRACON P/N:	ASPI-1367
Operating Temperature:	-40˚C to +125˚C
Storage Temperature:	Less than +40˚C, 70% RH.

Part Number ASPI-1367-	L (µH)	Tolerance (M, N)	R_{DC}(mΩ) Typ	R_{DC}(mΩ) Max	I_{sat} (A)	I_{rms} (A)
R10	0.1	N	0.25	0.5	80.0	60.0
R33	0.33	M	0.6	0.8	65.0	46.0
2R2	2.2	M	3.8	4.2	33.0	20.0
3R3	3.3	M	5.5	6.8	29.0	15.0
4R7	4.7	M	9.5	11.2	25.0	13.5
5R6	5.6	M	10.5	11.5	24.0	12.0
6R8	6.8	M	13.5	14.9	16.5	11.5
8R2	8.2	M	15.2	16.6	16.0	10.5
100	10	M	17.0	18.5	15.5	10.0

Test Conditions

1. Inductance tested at 200kHz, 0.25V, 0A; Tolerance M=±20%, N=±30%
2. All test data is in reference to 25°C ambient.
3. Isat will cause the inductance value to drop approximately 30%
4. Irms will cause an approximate ΔT of 40°C
5. The part temperature (ambient + temp. rise) should not exceed 125°C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
6. Please contact Abracon for the availability of other inductance values.

OPTIONS AND PART IDENTIFICATION

ASPI-1367-□□ -□

Inductance Code	Tolerance	Packaging
Please refer to the Electrical Spec Table	M: ±20% * N: ±30% *	T: Tape and Reel (250pcs / reel)

*N for 0.1µH
*M for 0.33~10µH

30332 Esperanza, Rancho Santa Margarita, California 92688
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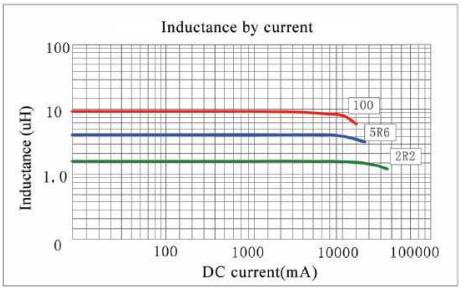
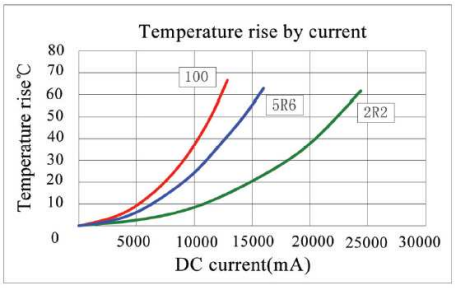
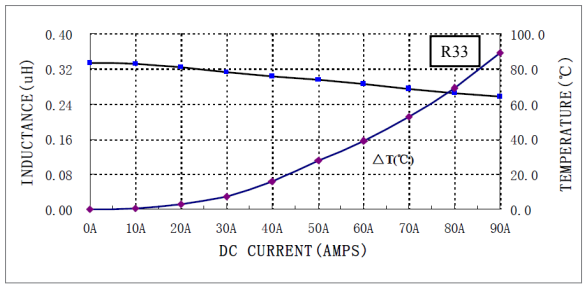
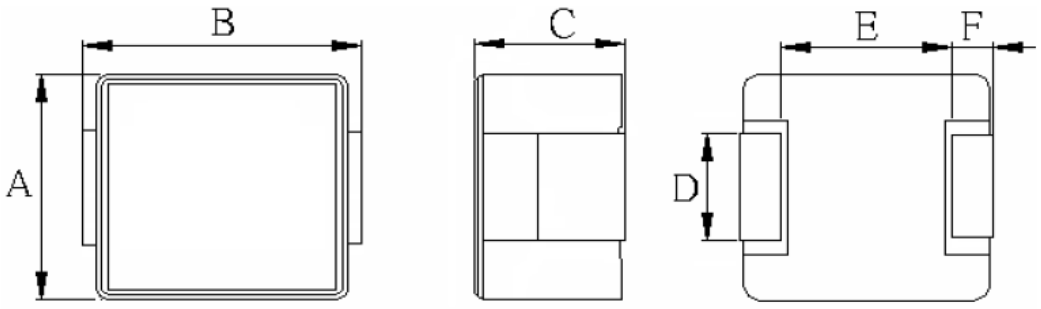
INDUCTANCE AND TEMPERATURE CURVE





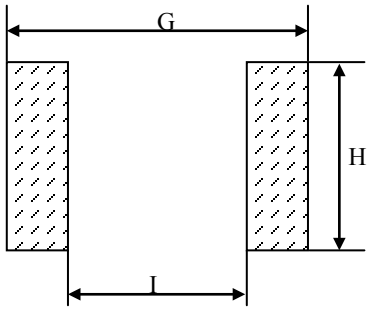


OUTLINE DIMENSIONS:



A	B	C	D	E	F
12.9 max.	14.0 max.	6.7 max.	4.0±0.5 for L≤1.5uH 3.0±0.5 for L=2.2uH 4.7±0.3 for L＞2.2uH	8.4 ref.	2.0±0.5

Recommended Land Pattern



G	H	I
14.5	5.0	8.0

Dimension: mm

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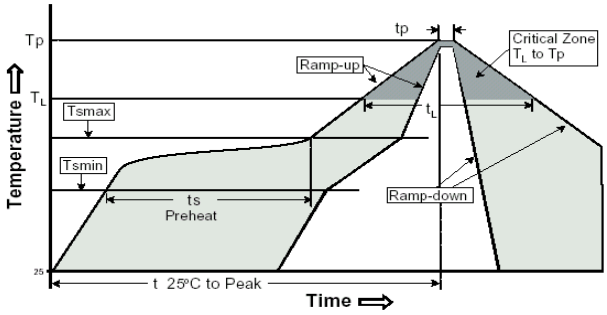
REFLOW PROFILE:



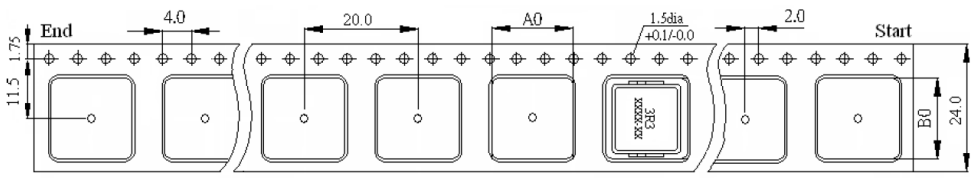
Profile Feature	Assembly
Average Ramp-Up Rate (Ts max to Tp)	3°C /second max.
Preheat -Temperature Min (Ts min) -Temperature Max (Ts max) -Time (ts min to ts max)	 150°C 200°C 60-180 seconds
Time maintained above: -Temperature (T_L) -Time (t_L)	 217°C 60-150 seconds
Peak/Classification Temperature (Tp)	245 +0°C
Time within 5°C of actual Peak Temperature (tp)	20-40 seconds
Ramp-Down Rate	6°C/seconds max
Time 25°C to Peak Temperature	8 minutes max.

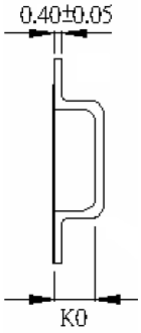
Storage Conditions and Handling

(1) Temperature and humidity conditions : less than 40°C and 70% RH.
(2) Products should be used within 6 months.
(3) The packaging material should be kept where no chlorine or sulfur exists in the air.
(4) Do not touch the electrodes (soldering terminals) with fingers as this may lead to deterioration of solder ability
(5) The use of tweezers or vacuum pick-ups is strongly recommended for individual components.
(6) Bulk handling should ensure that abrasion and mechanical shock are minimized.

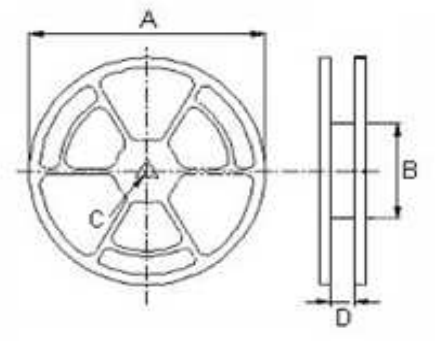
TAPE & REEL:

T= tape and reel (250pcs/reel)





A_0	B_0	K_0
13.2	13.9	7.0



A	B	C	D
330	100	13.5	24

Dimension: mm

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