



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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SHIELDED SMD CHIP POWER INDUCTOR



14.0 x 12.9 x 6.7mm

ASPI-1367



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 (μ H) | Tolerance (M, N) | R_{DC} (m Ω) | | I_{sat} (A) | I_{rms} (A) |
|---------------------------|-----------------|---------------------|------------------------|------|------------------|------------------|
| | | | Typ | Max | | |
| 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= \pm 20%, N= \pm 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
Please refer to the
Electrical Spec Table

Tolerance
M: \pm 20% *
N: \pm 30% *

Packaging
T: Tape and Reel (250pcs / reel)

*N for 0.1 μ H

*M for 0.33~10 μ H



SHIELDED SMD CHIP POWER INDUCTOR

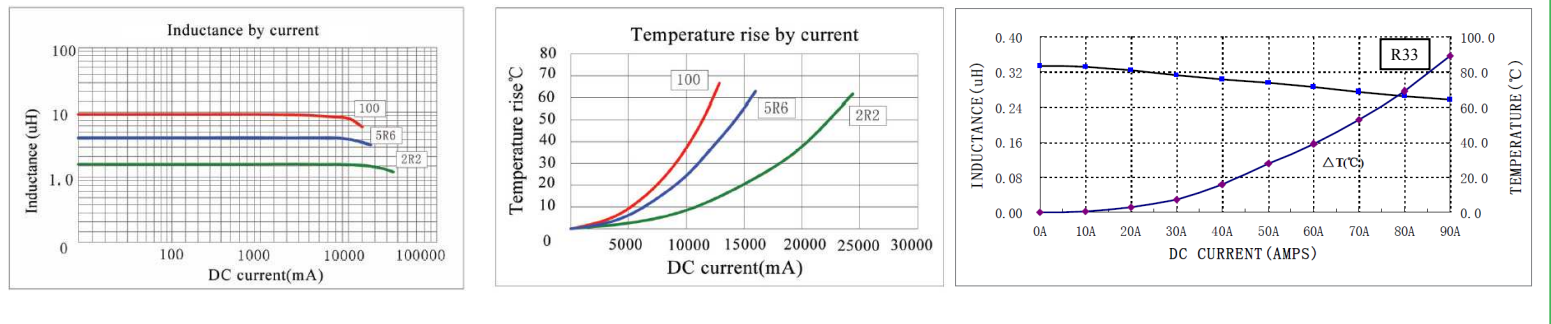


14.0 x 12.9 x 6.7mm

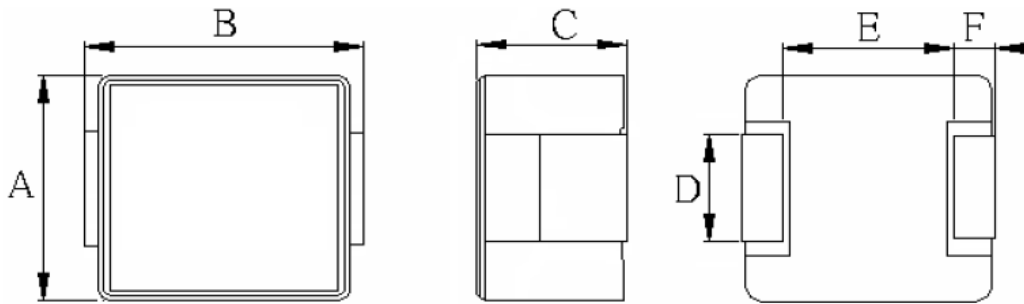
ASPI-1367

Pb | **RoHS**
Compliant

INDUCTANCE AND TEMPERATURE CURVE

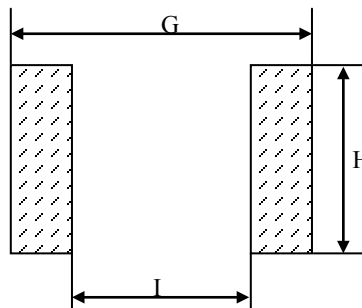


OUTLINE DIMENSIONS:



| 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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SHIELDED SMD CHIP POWER INDUCTOR



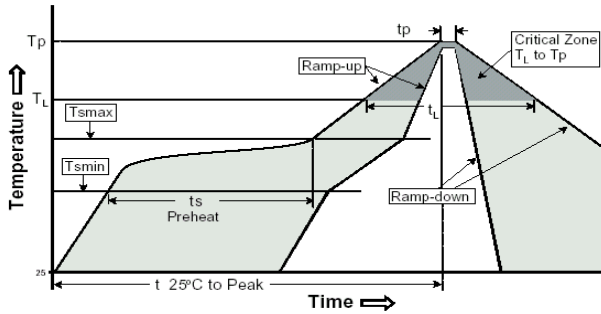
14.0 x 12.9 x 6.7mm

ASPI-1367



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REFLOW PROFILE:



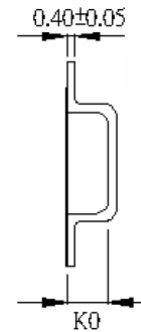
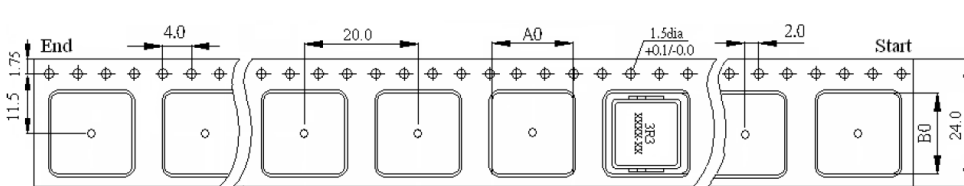
| Profile Feature | Assembly |
|---|----------------------------------|
| Average Ramp-Up Rate (T_{smax} to T_p) | 3°C/second max. |
| Preheat -Temperature Min (T_{smin}) -Temperature Max (T_{smax}) -Time (t_{smin} to t_{smax}) | 150°C 200°C 60-180 seconds |
| Time maintained above: -Temperature (T_L) -Time (t_t) | 217°C 60-150 seconds |
| Peak/Classification Temperature (T_p) | 245 +0°C |
| Time within 5°C of actual Peak Temperature (t_p) | 20-40 seconds |
| Ramp-Down Rate | 6°C/seconds max |
| Time 25°C to Peak Temperature | 8 minutes max. |

Storage Conditions and Handling

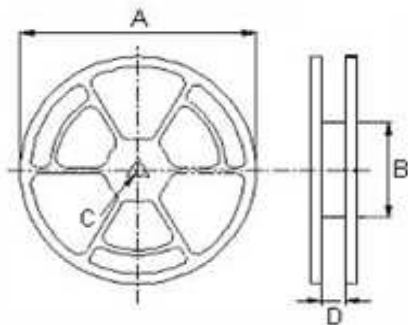
- (1) Temperature and humidity conditions : less than 40°C and 70% RH.
- (2) Products should be used within 6 months.
- (3) The packaging material should be kept where no chlorine or sulfur exists in the air.
- (4) Do not touch the electrodes (soldering terminals) with fingers as this may lead to deterioration 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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