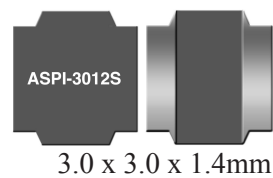


# SMD SHIELDED POWER INDUCTOR



ASPI-3012S



RoHS  
Compliant

3.0 x 3.0 x 1.4mm

## FEATURES:

- Shielded magnetics, low radiation
- Large Terminal surface for good PCB bonding
- Low DCR, High Energy storage, suitable for large currents
- Ideal for a variety of DC-DC converter inductor applications

## APPLICATIONS:

- Portable communication equipment
- OA equipment
- LCD, DVD, modem, set-top box
- DC/DC converters

## ELECTRICAL SPECIFICATIONS:

Abracon P/N:	ASPI-3012S Series
Operating Temperature :	-20°C to +120°C
Storage Temperature :	-10°C to +40°C and 70% R.H.

Part Number	Inductance	L Tolerance	Inductance Test Condition	DC Resistance (±30%)	Saturation Current	Temperature Rise Current	Min. Self-resonant frequency
Units	μH	—	—	Ω	A	A	MHz
Symbol	L	—	—	DCR	I <sub>sat</sub>	I <sub>rms</sub>	SRF
ASPI-3012S-R82	0.82	N	100K, 1V	0.030	2.05	2.47	180
ASPI-3012S-1R5	1.5	N	100K, 1V	0.045	1.62	2.01	110
ASPI-3012S-2R4	2.4	N	100K, 1V	0.068	1.30	1.64	100
ASPI-3012S-3R6	3.6	N	100K, 1V	0.100	1.05	1.36	74
ASPI-3012S-4R7	4.7	N	100K, 1V	0.120	0.90	1.24	61
ASPI-3012S-6R8	6.8	N	100K, 1V	0.190	0.75	0.98	61
ASPI-3012S-100	10	M	100K, 1V	0.265	0.60	0.83	42
ASPI-3012S-150	15	M	100K, 1V	0.360	0.45	0.71	27
ASPI-3012S-270	27	M	100K, 1V	0.770	0.40	0.49	21
ASPI-3012S-330	33	M	100K, 1V	0.875	0.36	0.46	18
ASPI-3012S-360	36	M	100K, 1V	0.950	0.34	0.44	18
ASPI-3012S-470	47	M	100K, 1V	1.100	0.27	0.41	14
ASPI-3012S-560	56	M	100K, 1V	1.380	0.26	0.36	14
ASPI-3012S-620	62	M	100K, 1V	1.530	0.25	0.35	12
ASPI-3012S-820	82	M	100K, 1V	1.900	0.22	0.31	12
ASPI-3012S-101	100	M	100K, 1V	2.860	0.21	0.25	12

### Test conditions

- Ambient Temperature: 20±15°C
- Relative Humidity: 65%±20%
- Air Pressure: 86KPa to 106KPa

Inductance (L): ZM2355 LCR meter or equivalent

Direct Current Resistance (DCR): HIOKI 3540 or equivalent

Saturation Current (I<sub>sat</sub>): Saturation current meter

Definition of saturation current (I<sub>sat</sub>): DC current at which the inductance drops approximate 30% from its value without current

Temperature rise current (I<sub>rms</sub>): Electric Power, Electric current meter, Thermometer

## OPTIONS AND PART IDENTIFICATION

ASPI-3012S - [ ] [ ] - [ ]

**Inductance Code**

Please refer to the table on Page 2

**Tolerance**

M: ±20%  
or  
N: ±30%

**Packaging**

Blank: Bulk  
T: Tape and Reel

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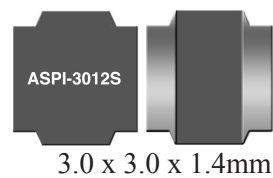
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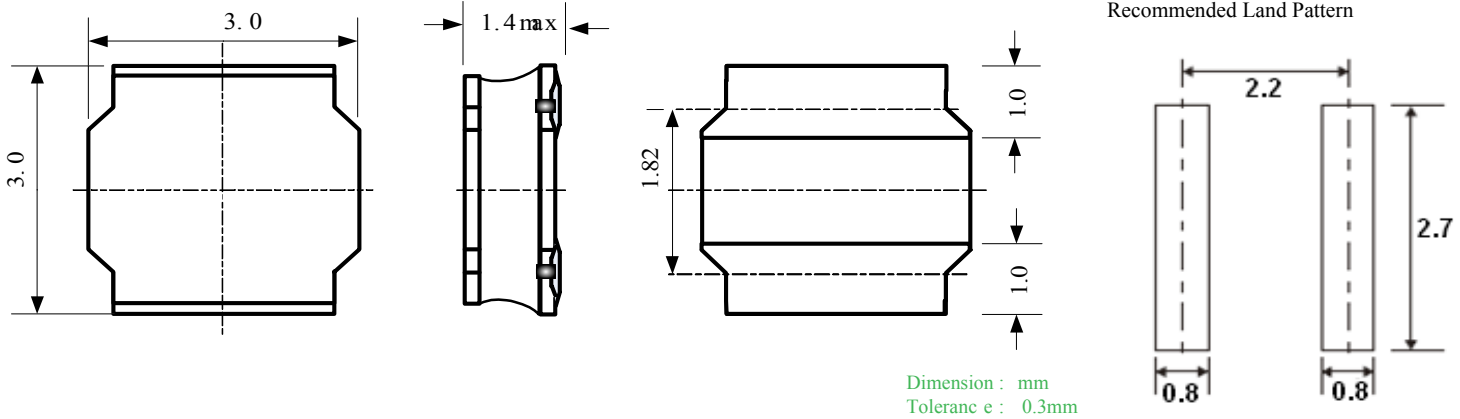


ASPI-3012S



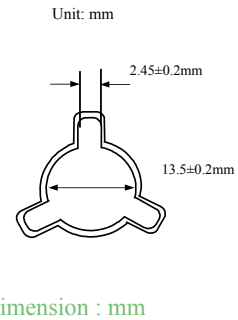
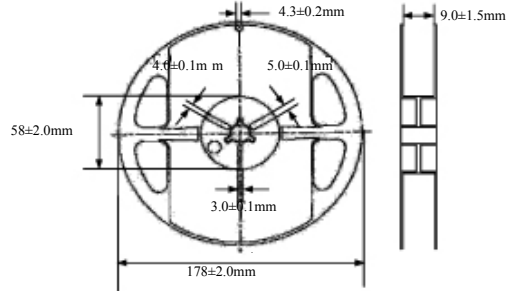
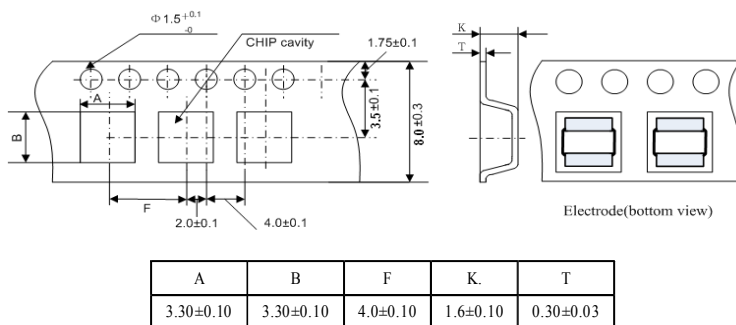
RoHS  
Compliant

## OUTLINE DRAWING:



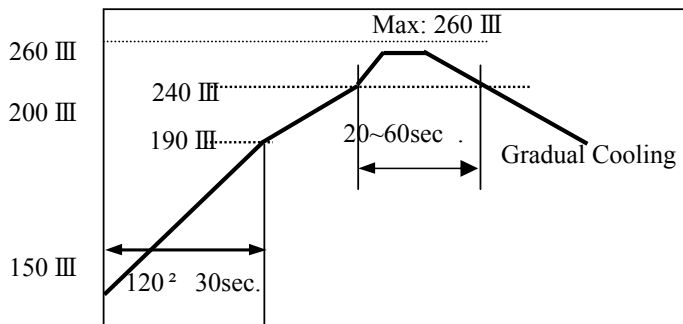
## TAPE & REEL:

Tape and reel 2,000pcs/reel



Dimension : mm

## REFLOW PROFILE:



1~2 °C/sec. Ramp  
Pre-heating: 150~190 °C/120±30sec.  
Time above 240 °C: 20~60sec  
Peak temperature: 260 °C Max/10sec.  
Solder paste: Sn/3.0Ag/0.5Cu  
Max.2 times for re-flowing

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