Low Profile Shielded SMD Chip Power Inductor



ASPI-2510 Series

Request Samples | Check Inventory

2.5 x 2.0 x 1.0 mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- Small size and low profile: 1.0mm
- Small DCR and high rated current
- High reliability to mechanical stress
- Magnetically shielded by magnetic powder molding
- Suitable for RoHS reflow profile

Applications

- Mobile phones
- MP3 & 4 and other portable communication equipment
- Digital cameras.

Electrical Specifications

Part Number	Inductance	Inductance Tolerance	DCR		Saturation Current	Temperature Rise Current
Units	µH	%	Ω ± 20%		A	A
Symbol	L	M, N	Max	Typ	Isat	Irms
ASPI-2510-R22	0.24	M	0.034	0.028	3.60	2.75
ASPI-2510-R33	0.33	M	0.043	0.036	3.80	2.40
ASPI-2510-R47	0.47	M	0.044	0.037	2.40	2.40
ASPI-2510-R68	0.68	M	0.061	0.051	2.75	2.10
ASPI-2510-1R0	1.0	M	0.080	0.067	2.05	1.80
ASPI-2510-1R5	1.5	M	0.108	0.090	1.70	1.55
ASPI-2510-2R2	2.2	M	0.137	0.114	1.55	1.40
ASPI-2510-3R3	3.3	M	0.228	0.170	1.10	1.10
ASPI-2510-4R7	4.7	M	0.323	0.269	1.00	0.91
ASPI-2510-6R8	6.8	M	0.451	0.376	0.82	0.76
ASPI-2510-100	10.0	M	0.584	0.487	0.65	0.67
ASPI-2510-150	15.0	M	0.954	0.795	0.55	0.50
ASPI-2510-220	22.0	M	1.548	1.290	0.45	0.40
ASPI-2510-330	33.0	M	1.548	1.290	0.25	0.40

Test Conditions

1. Inductance is measured in HP-4285A Precision LCR Meter.
2. RDC is measured in DU-5011 milli ohm meter.(or equivalent).
3. Isat : Based on inductance change (Δ L/Lo :≤ -30%)
4. Irms : Based on temperature rise (Δ T : 40ºC TYP.)
5. Test Freq: 100KHz, 1Vrms

Operating Temperature: -40°C ~ +125°C (including self-heating)
Storage Temperature: -10°C ~ +40°C, 30%-70% RH (in original packaging)

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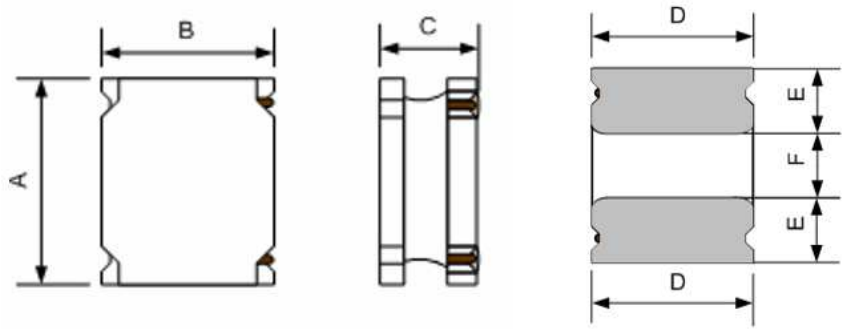
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Part Identification

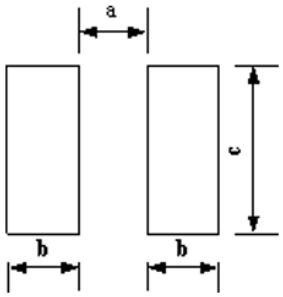
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Inductane Code	Tolerance	Packaging
Please refer to the electrical specifications table	M: ±20%	T2: Tape and Reel (2kpcs / reel)

Mechanical Specifications



Series	A	B	C	D	E	F
ASPI-2510	2.5±0.2	2.0±0.2	1.0Max.	2.0±0.2	0.80±0.2	0.80±0.2



Series	a	b	c
ASPI-2510	0.80 Typ	0.85 Typ	2.00 Typ

Recommended Land Pattern

Dimensions: mm

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5101 Hidden Creek Ln, Spicewood TX 78669
Phone: 512-371-6159 Fax: 512-351-8858
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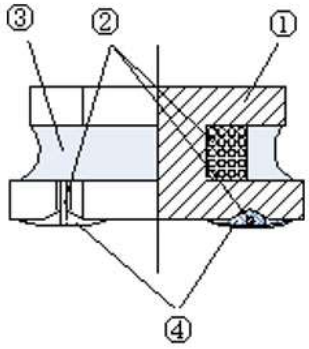


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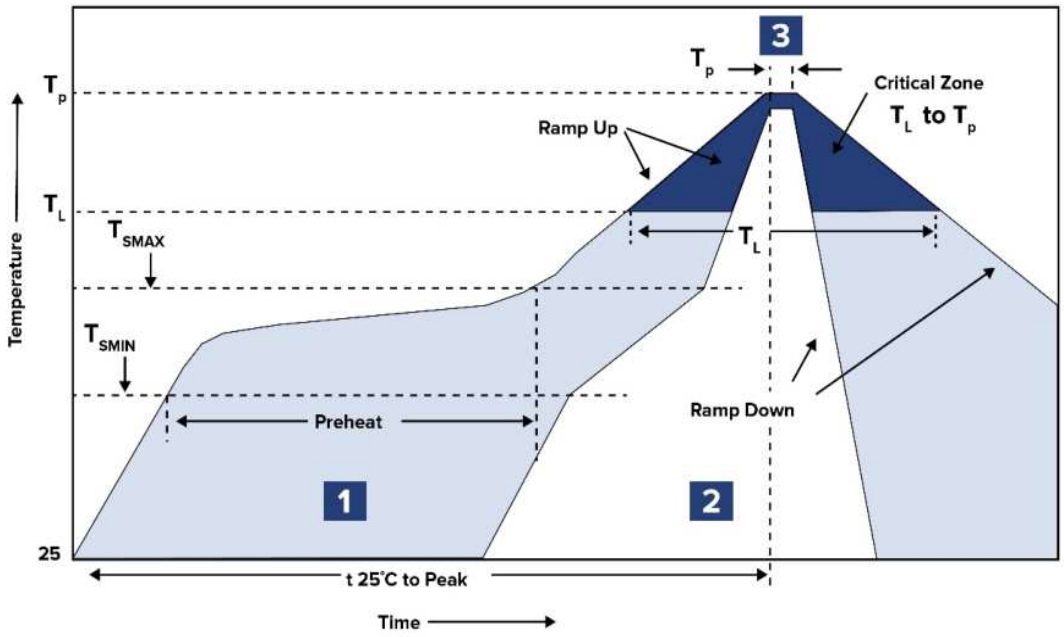
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Materials



No.	Components	Material
1	Ferrite Core	Ni-Zn Ferrite
2	Wire	Polyurethane system enameled copper wire
3	Magnetic Glue	Epoxy resin and magnetic powder
4	Electrodes	AgNiSn or FeNiCu +Sn Alloy

Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	T_{SMIN} ~ T_{SMAX} 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	T_L 217°C	60 ~ 90 sec.
3	Peak heat	T_P 260°C	5 sec. MAX

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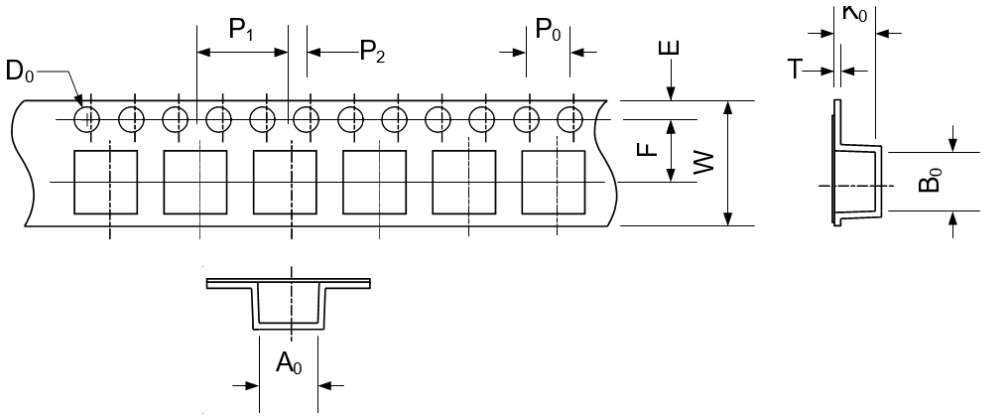
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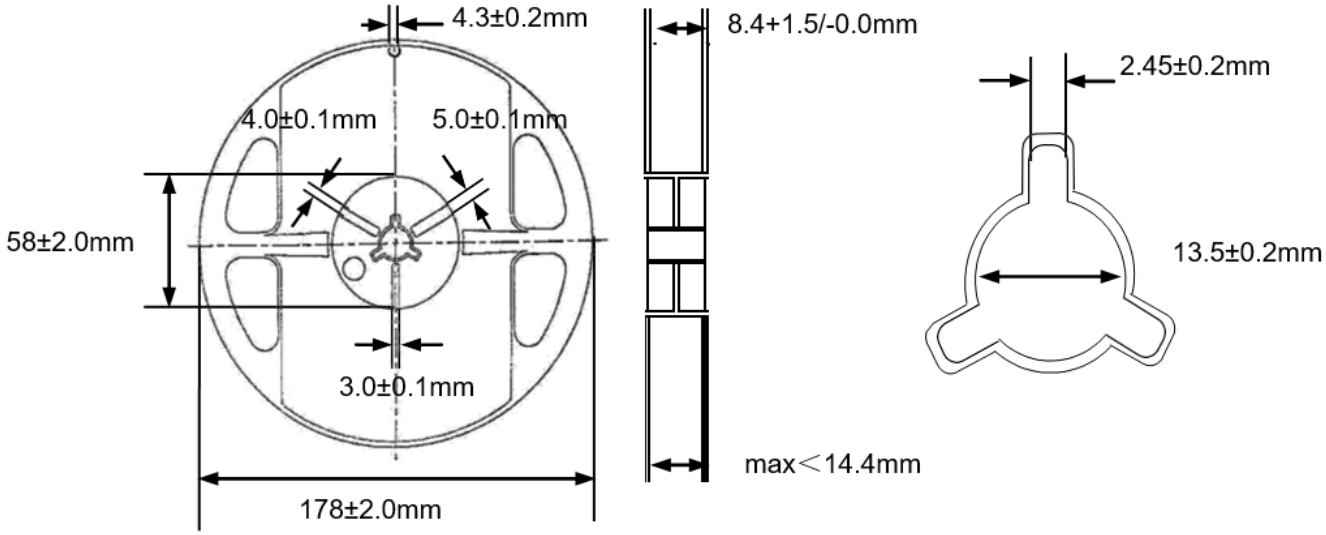
Packaging

T2: 2,000pcs/Reel



A0	B0	W	E	F	P0	P1	P2	D0	T	K0
2.45±0.05	2.75±0.05	8±0.1	1.75±0.1	3.5±0.05	4.0±0.1	4.0±0.1	2.0±0.05	1.5+0.1./-0.0	0.25±0.03	1.2±0.05

Dimensions: mm



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