

ECN/PCN No.: M1370

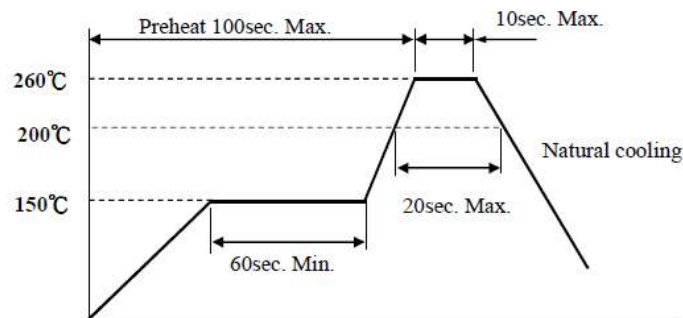
For Manufacturer			
<b>Product Description:</b>  <b>Low Profile Shielded SMD Chip Power Inductor</b>	<b>Abracon Part Number / Part Series:</b>  <b>ASPI-2512 Series</b>	<input type="checkbox"/> Documentation only <input checked="" type="checkbox"/> ECN <input type="checkbox"/> EOL	<input checked="" type="checkbox"/> Series <input type="checkbox"/> Part Number(s)
<b>Affected Revision:</b> C	<b>New Revision:</b> D	<b>Application:</b>	<input type="checkbox"/> Safety <input type="checkbox"/> Non-Safety

Prior to Change:

### Key Electrical Specifications

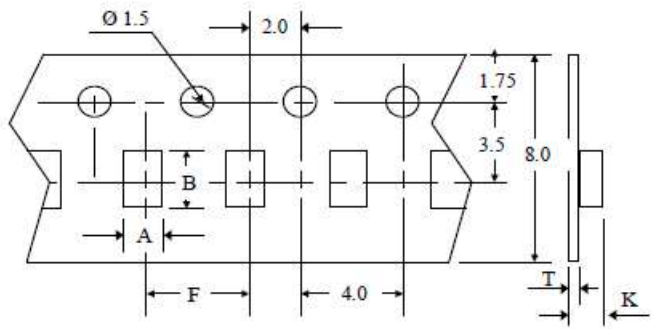
Part Number ASPI-2512-Inductance Code	Inductance	Inductance Tolerance	DCR	Saturation Current	Temperature Rise Current
Units	$\mu\text{H}$	%	$\text{m}\Omega \pm 20\%$	A	A
Symbol	L	M, N	DCR	$I_{\text{sat}}^*$	$I_{\text{rms}}^*$
ASPI-2512-R47	0.47	N	47	2.75	2.15
ASPI-2512-1R0	1.0	N	73	2.20	1.70
ASPI-2512-1R5	1.5	N	105	1.80	1.45
ASPI-2512-2R2	2.2	M	129	1.55	1.30
ASPI-2512-3R3	3.3	M	227	1.25	0.98
ASPI-2512-4R7	4.7	M	338	1.05	0.81
ASPI-2512-6R8	6.8	M	510	0.85	0.65
ASPI-2512-100	10.0	M	630	0.73	0.59

### Reflow Profile

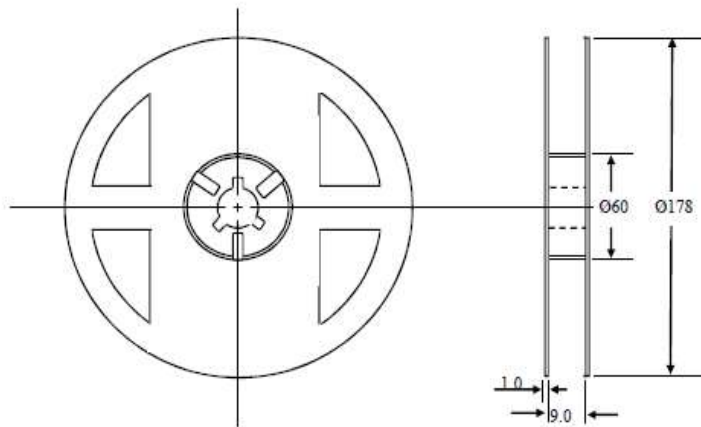


**Packing**

**T2: 2,000pcs / reel**

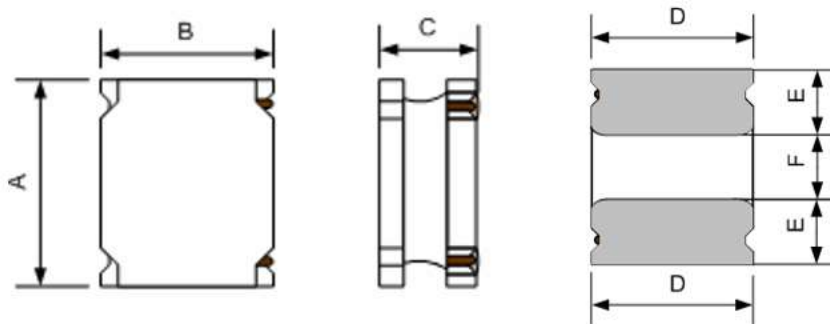


A	2.27
B	2.74
K	1.40
F	4
T	0.25

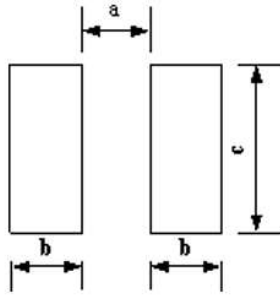


**After Change:**
**New Part  
Change**
**Electrical Specifications**

Part Number	Inductance	Inductance Tolerance	DCR		Saturation Current	Temperature Rise Current
Units	$\mu\text{H}$	%	$\text{m}\Omega \pm 20\%$		A	A
Symbol	L	M, N	Max	Typ	Isat	Irms
ASPI-2512-R47	0.47	N	0.061	0.047	3.82	2.15
ASPI-2512-R68	0.68	N	0.074	0.057	3.28	1.95
ASPI-2512-1R0	1.0	N	0.090	0.069	2.59	1.93
ASPI-2512-1R2	1.2	N	0.129	0.099	2.38	1.46
ASPI-2512-1R5	1.5	N	0.147	0.113	2.24	1.40
ASPI-2512-2R2	2.2	M	0.216	0.166	1.85	1.15
ASPI-2512-2R7	2.7	M	0.239	0.184	1.72	1.09
ASPI-2512-3R3	3.3	M	0.264	0.203	1.61	1.04
ASPI-2512-3R6	3.6	M	0.348	0.268	1.46	0.90
ASPI-2512-4R3	4.3	M	0.377	0.290	1.37	0.87
ASPI-2512-4R7	4.7	M	0.377	0.290	1.12	0.84
ASPI-2512-5R1	5.1	M	0.500	0.385	1.23	0.75
ASPI-2512-5R6	5.6	M	0.538	0.414	1.11	0.73
ASPI-2512-6R2	6.2	M	0.542	0.417	1.03	0.73
ASPI-2512-6R8	6.8	M	0.581	0.447	0.98	0.69
ASPI-2512-7R5	7.5	M	0.611	0.470	0.97	0.68
ASPI-2512-8R2	8.2	M	0.658	0.506	0.98	0.65
ASPI-2512-9R1	9.1	M	0.690	0.531	0.91	0.62
ASPI-2512-100	10.0	M	0.690	0.531	0.79	0.62
ASPI-2512-120	12.0	M	1.075	0.827	0.78	0.51
ASPI-2512-150	15.0	M	1.591	1.224	0.68	0.42
ASPI-2512-220	22.0	M	1.976	1.520	0.53	0.38

**Mechanical Specifications**


Series	A	B	C	D	E	F
ASPI-2512	2.5 $\pm$ 0.1	2.0 $\pm$ 0.1	1.2Max.	2.0 $\pm$ 0.2	0.80 $\pm$ 0.2	0.80 $\pm$ 0.2

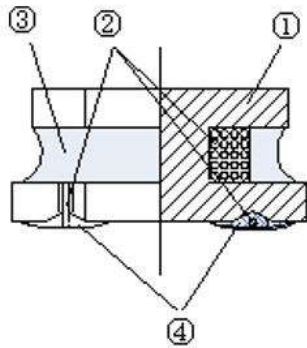


Series	a	b	c
ASPI-2512	0.80 Typ	0.85 Typ	2.00 Typ

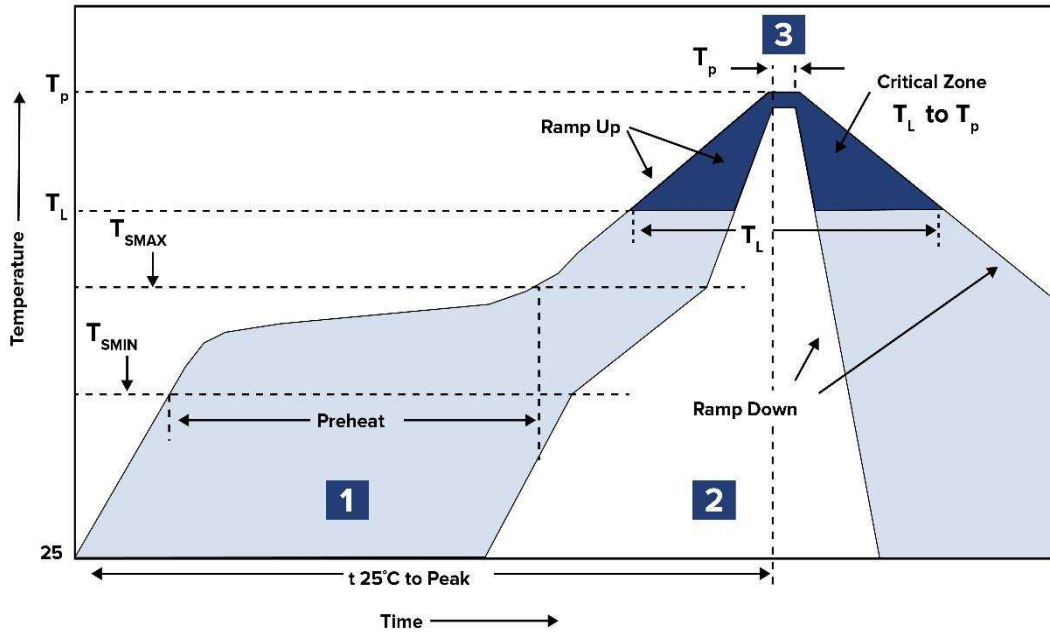
Recommended Land Pattern

Dimensions: mm

### Materials



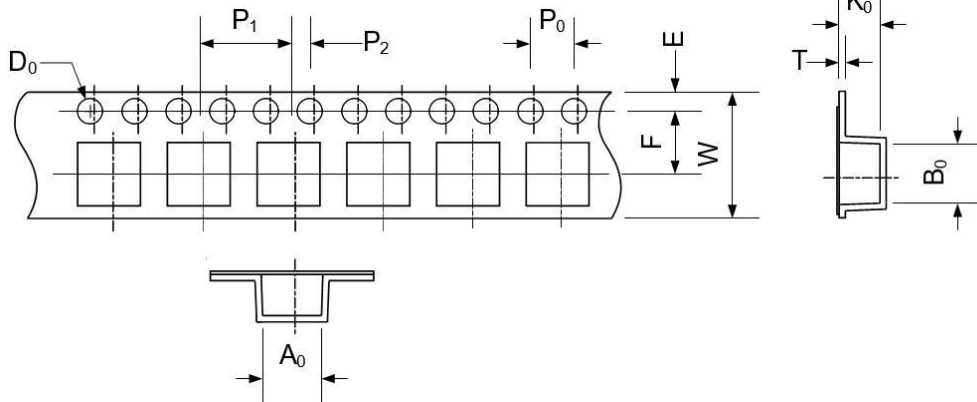
No.	Components	Material
	Ferrite Core	Ni-Zn Ferrite
	Wire	Polyurethane system enameled copper wire
	Magnetic Glue	Epoxy resin and magnetic powder
	Electrodes	AgNiSn or FeNiCu +Sn Alloy

**Reflow Profile**


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

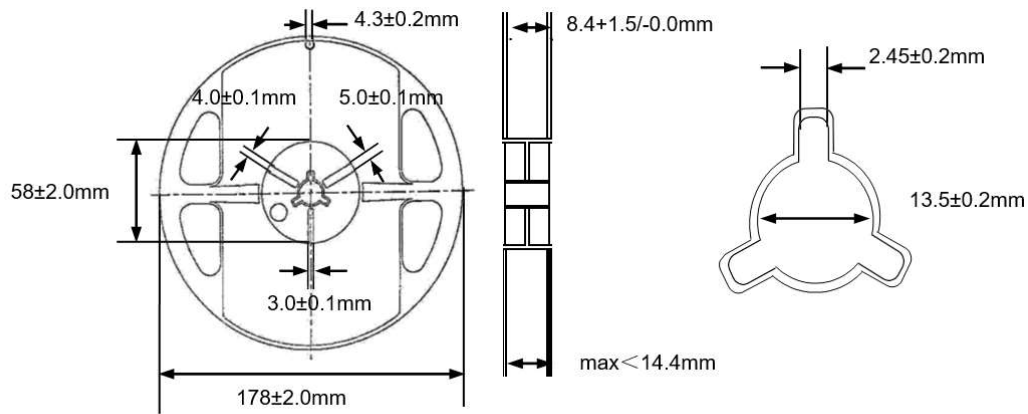
**Packaging**

T2: 3,000pcs/reel



A0	B0	W	E	F	P0	P1	P2	D0	T	K0
2.35±0.05	2.65±0.05	8±0.3	1.75±0.1	3.5±0.05	4.0±0.1	4.0±0.1	2.0±0.1	1.5+0.1/-0.0	0.25±0.03	1.4±0.1

Dimensions: mm


**Cause/Reason for Change:**

Moving to new production line. Adding several new part numbers to the series.

**Change Plan**
**Effective Date:**

6/23/2022

**Additional Remarks:**
**Change Declaration:**

Electrical specifications have changed slightly. Please ensure customers review changes prior to using on designs.

**Issued Date:**

6/23/2022

**Issued By:**
**Issued Department:**
**Approval:**
**Approval:**
**Approval:**
**For Abracon EOL only**
**Last Time Buy (if applicable):**
**Alternate Part Number / Part Series:**
**Additional Approval:**
**Additional Approval:**
**Additional Approval:**
**Customer Approval (If Applicable)**
**Qualification Status:**

Approved  Not accepted

*Note: It is considered approved if there is no feedback from the customer 1 month after ECN/PCN is released.*

**Customer Part Number:**
**Customer Project:**
**Company Name:**
**Company Representative:**
**Representative Signature:**
**Customer Remarks:**

<b>Affected Part Numbers</b>
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ASPI-2512-R47N-T2
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ASPI-2512-1R0N-T2
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ASPI-2512-1R5N-T2
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ASPI-2512-2R2M-T2
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ASPI-2512-3R3M-T2
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ASPI-2512-4R7M-T2
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ASPI-2512-6R8M-T2
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ASPI-2512-100M-T2
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<b>Part Numbers Added to Series</b>
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ASPI-2512-R68N-T2
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ASPI-2512-1R2N-T2
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ASPI-2512-2R7M-T2
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ASPI-2512-3R6M-T2
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ASPI-2512-4R3M-T2
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ASPI-2512-5R1M-T2
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ASPI-2512-5R6M-T2
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ASPI-2512-6R2M-T2
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ASPI-2512-7R5M-T2
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ASPI-2512-8R2M-T2

ASPI-2512-9R1M-T2

ASPI-2512-120M-T2

ASPI-2512-150M-T2

ASPI-2512-220M-T2