SPC TECHNOLOGY

SPC-F005.DWG

REVISIONS

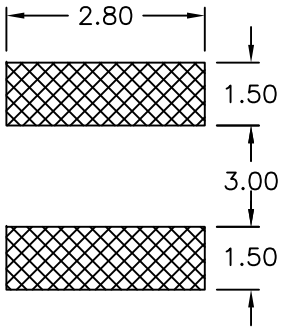
DOC. NO. SPC-F005 * Effective: 7/8/02 * DCP No: 1398

DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
2048	A	RELEASED	JN	05/21/09	JWM	05/21/09	JWM	05/21/09

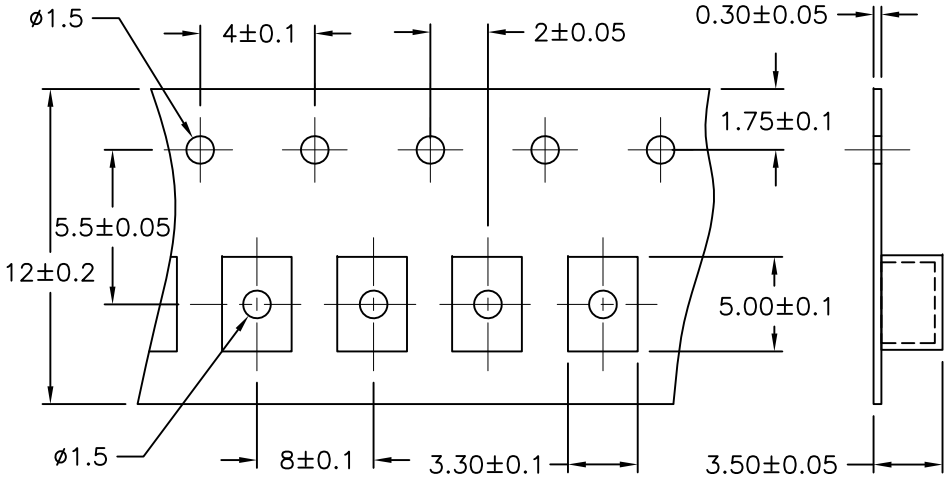
RoHS Compliant

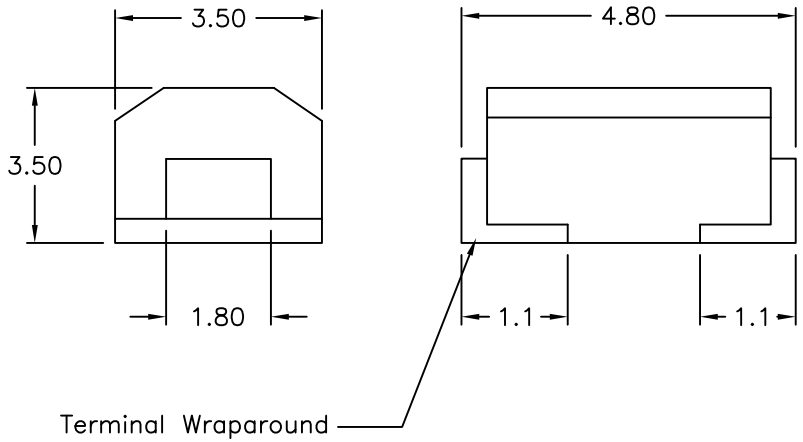
Features:
-Very strong solderability by flow soldering, soldering iron or wave soldering.
-Highly accurate dimensions, can be mounted automatically.
-Terminals are highly resistant to pull forces.
-Highly resistant to mechanical shocks and pressure.
-Highly reliable in environments of sudden temperature change and humidity.

Recommended Pad Layout



Tape Dimension





DISCLAIMER:
ALL STATEMENTS AND TECHNICAL INFORMATION CONTAINED HEREIN ARE BASED UPON INFORMATION AND/OR TESTS WE BELIEVE TO BE ACCURATE AND RELIABLE. SINCE CONDITIONS OF USE ARE BEYOND OUR CONTROL, THE USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR THE INTENDED USE AND ASSUME ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH.

TOLERANCES:
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
Jason Nash	05/21/09
CHECKED BY:	DATE:
JWM	05/21/09
APPROVED BY:	DATE:
JWM	05/21/09

DRAWING TITLE: Wound Chip Inductor – Case size 1812

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	Ta-1123	Ta-1123.DWG	A

SCALE: NTS | U.O.M.: Millimeters | SHEET: 1 OF 2

RoHS Compliant

Mfr PN	Inductance	Inductance Tolerance	DC Resistance Max	DC Current Rating	Self Resonant Frequency	Package	Q Factor
MCNL12JT100	10000nH	± 5%	1.6ohm	250mA	20MHz	1812	Q Factor:50
MCNL12JT101	10000nH	± 5%	8ohm	110mA	8MHz	1812	Q Factor:40
MCNL12JT150	1500nH	± 5%	2.5ohm	200mA	17MHz	1812	Q Factor:50
MCNL12JT151	15000nH	± 5%	9ohm	105mA	5MHz	1812	Q Factor:40
MCNL12JT1R0	1000nH	± 5%	0.5ohm	450mA	100MHz	1812	Q Factor:50
MCNL12JT1R5	1500nH	± 5%	0.6ohm	410mA	70MHz	1812	Q Factor:50
MCNL12JT220	2200nH	± 5%	3.2ohm	180mA	13MHz	1812	Q Factor:50
MCNL12JT221	22000nH	± 5%	10ohm	100mA	4MHz	1812	Q Factor:40
MCNL12JT2R2	2200nH	± 5%	0.7ohm	380mA	55MHz	1812	Q Factor:50
MCNL12JT330	3300nH	± 5%	4ohm	160mA	11MHz	1812	Q Factor:50
MCNL12JT331	33000nH	± 5%	15ohm	85mA	3.5MHz	1812	Q Factor:30
MCNL12JT3R3	3300nH	± 5%	0.8ohm	355mA	45MHz	1812	Q Factor:50
MCNL12JT470	4700nH	± 5%	5ohm	140mA	10MHz	1812	Q Factor:50
MCNL12JT471	47000nH	± 5%	26ohm	62mA	3MHz	1812	Q Factor:30
MCNL12JT4R7	4700nH	± 5%	1ohm	315mA	35MHz	1812	Q Factor:50
MCNL12JT680	6800nH	± 5%	6ohm	130mA	9MHz	1812	Q Factor:50
MCNL12JT681	68000nH	± 5%	30ohm	50mA	3MHz	1812	Q Factor:30
MCNL12JT6R8	6800nH	± 5%	1.2ohm	285mA	27MHz	1812	Q Factor:50

Mechanical Performance

No.	Item	Specification	Test Methods
1	**Vibration Test**	**Appearance: No damage** **L change: within ±10%** **Q change: within ±30%** **RDC: WIthIn specIfIcatIon**	Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1min Amplitude: 1.5mm Time: 2hrs for each axis (X, Y &Z), total 6hrs
2	**ResIstance to Soldering-Heat**	Appearance: No Damage	Solder Temperature: 270±5°C Immersion Time: 10±2sec
3	**Solderability**	The electrodes shall be at least 90% covered with new solder coating	Lead-free inductor: after fluxing (alpha 100 or equiv), inductor shall be dipped in a melted solder bath at 245±5°C, 5±0.5 second

Climatic Test

No.	Item	Specification	Test Method
1	Temperature Cycle	Appearance: No damage L change: within ±10% Q change: within ±30% RDC: Within specification	One cycle: Step 1: -25±3, 30 Step 2: 25±2, 3 Step 3: 85±3, 30 Step 4: 25±2, 3 Total: 100 cycles Measured after exposure in the room condition for 24hrs
2	Humidity Resistance		Temperature: 40±2°C Relative Humidity: 90~95% Time: 1000hrs Measured after exposure in the room condition for 24hrs
3	High Temperature Storage		Temperature: 85±3°C Relative Humidity: 20% Applied Current: Rated Current Time: 1000hrs Measured after exposure in the room condition for 24hr
4	Low Temperature Storage		Temperature:-25±2°C Relative Humidity:0% Time: 1000hrs Measured after exposure in the room condition for 24hr

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	Ta-1122	Ta-1122.DWG	A