SPC TECHNOLOGY

SPC-F005.DWG

REVISIONS

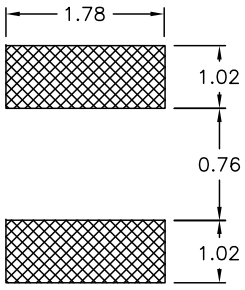
DOC. NO. SPC-F005 * Effective: 7/8/02 * DCP No: 1398

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

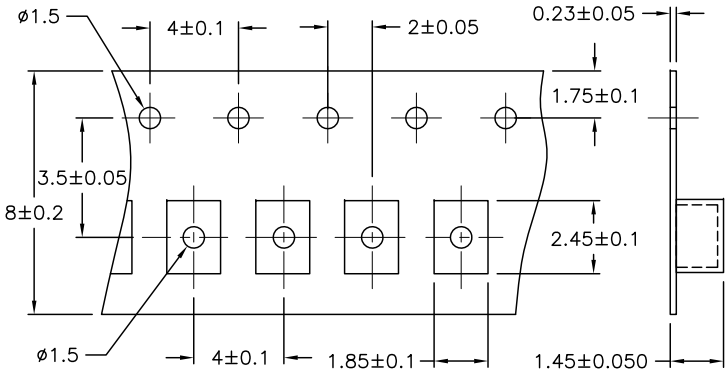
RoHS Compliant

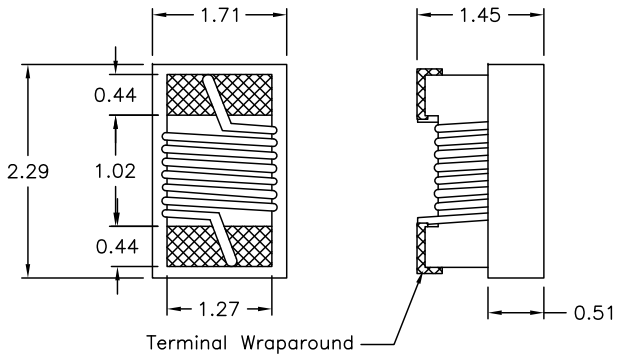
Features:
-Very strong solderability by flow soldering, soldering iron or wave soldering.
-Highly accurate dimensions, can be mounted automatically.
-Terminals are highly resistant to pull forces.
-Highly resistant to mechanical shocks and pressure.
-Highly reliable in environments of sudden temperature 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 0805

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	Ta-1120	Ta-1120.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
MCNL05JT100	10000nH	± 5%	4.5ohm	180mA	30MHz	805	Q Factor:10
MCNL05JT1R0	1000nH	± 5%	0.8ohm	450mA	280MHz	805	Q Factor:15
MCNL05JT1R5	1500nH	± 5%	1.05ohm	350mA	250MHz	805	Q Factor:15
MCNL05JT2R2	2200nH	± 5%	1.1ohm	320mA	110MHz	805	Q Factor:15
MCNL05JT3R3	3300nH	± 5%	1.5ohm	300mA	60MHz	805	Q Factor:15
MCNL05JT4R7	4700nH	± 5%	2.1ohm	200mA	45MHz	805	Q Factor:15
MCNL05JT6R8	6800nH	± 5%	2.7ohm	200mA	36MHz	805	Q Factor:15
MCNL05JTR15	150nH	± 5%	0.18ohm	1100mA	900MHz	805	Q Factor:20
MCNL05JTR22	220nH	± 5%	0.25ohm	700mA	550MHz	805	Q Factor:20
MCNL05JTR33	330nH	± 5%	0.35ohm	650mA	550MHz	805	Q Factor:20
MCNL05JTR47	470nH	± 5%	0.45ohm	600mA	350MHz	805	Q Factor:20
MCNL05JTR68	680nH	± 5%	0.6ohm	500mA	300MHz	805	Q Factor:20

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

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SCALE: NTS | U.O.M.: INCHES [mm] | SHEET: 2 OF 2