SMD Molding Power Inductor

◆ Features



1. Magnetically shielded construction, low DC resistance
2. The use of magnetic iron powder ensure capabilityfor large current
3. Low audible core noise
4. Ideal for DC-DC converter applications in hand held personal computer and etc
5. Frequency Range: up to 30MHz
6. RoHS complian

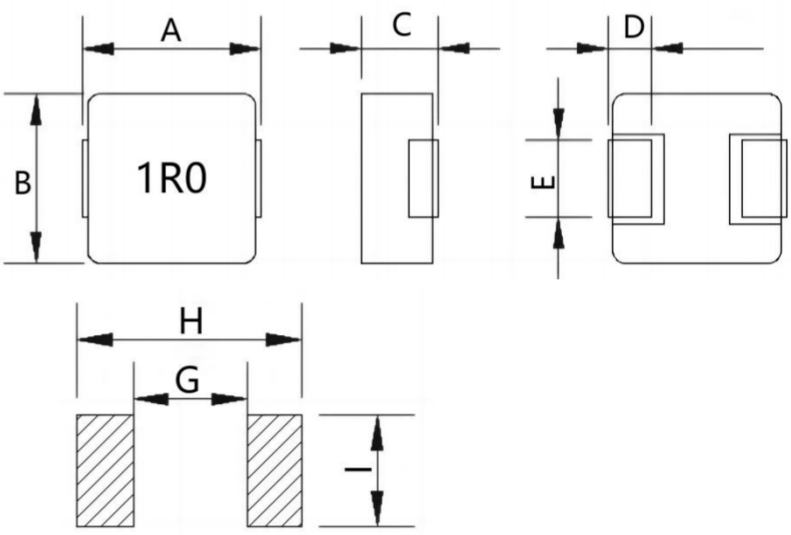
◆ Applications

1. Nsmart phone, MID
2. Next-generation mobile devices with muTifunction such as adding color TV and digital movie cameras
3. Flat-screen TVs, blue-ray disc recorders, set top box
4. Notebooks, desktop computers, servers, graphic cards
5. Portable gaming devices, personal navigation systems personal muTimedia devices
6. Automotive systems
7. Telecomm, base stations

◆ Lead Free Part Numbering

SLO	1060	H	100	M	T	T
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(1) Series Type
(2) Dimension：A X C
(3) Material Code
(4) Inductance：100=10uH；
(5) Inductance Tolerance：M=±20%, N=±30%
(6) Company Code
(7) Packaging：packed in embossed carrier tape



◆ Dimensions

Series	A	B	C	D	E	G Typ	H Typ	I Typ
SLO1060H	11.0±0.5	10.0±0.5	6.0 Max	2.3±0.5	3.0±0.5	6.0	10.8	4.0

◆ Specification

Part No.	Inductance	DC Resistance	Saturation Current	Heating Rating Current
	L0(uH)	DCR (mΩ)	Isat (A)	Irms (A)
	±20 %, 100 kHz, 1V	MAX.	TYP	TYP
SLO1060H100MTT	10	25.0	13.0	9.0
SLO1060H220MTT	22	55.0	7.0	6.0
SLO1060H470MTT	47	95.0	5.0	4.0

Notes

1. All test data is referenced to 25 °C ambient
2. Operating temperature range - 45 °C to + 125 °C
3. Irms (A):DC current (A) that will cause an approximate ΔT of 40 °C(reference ambient temperature is 25 °C)
4. Isat(A):DC current (A) that will cause L0 to drop approximately 30 %.
5. The part temperature (ambient + temp rise) should not exceed 125 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

◆ Reliability Mechanical

Mechanical Reliability		
Item	Specification and Requirement	Test Method
Solderability	1. No case deformation or change in appearance 2. New solder coverage More than 95%	1.Preheat：155℃±5℃ ，60S±2S 2.Tin: lead-free. 3.Temperature:240℃±5℃，flux 3.0S±0.5S.
Mechanical shock	1. No case deformation or change in appearance 2. △L/Lo≦±10%	1. Acceleration： 100G 2. Pulse time:：6ms 3. 3 times in each positive and negative direction of 3 mutual perpendicular directions
Mechanical vibration	1. No case deformation or change in appearance 2. △L/Lo≦±10%	1. Reflow: 2times 2. Frequency: 10HZ～55HZ～10HZ，20 Min/Cycles 3. Amplitude: 1.52 mm 4. Directions: X,Y,Z 5. Time: 12 cycle / direction
Endurance Reliability		
Item	Specification and Requirement	Test Method
Thermal Shock	Inductance change: Within ± 10% Without distinct damage in appearance	1. First -45℃ for 30 minutes，last 125℃ for 30 minutes as 1 cycle. Go through 1000 cycles. 2. Max transfer time is 3 minutes. 3. Measured at room temperature after placing for 24±2 hours
Biased Humidity	Inductance change: Within ± 10% Without distinct damage in appearance	1.Reflow 2 times, 2.85℃,85%RH,1000 hours 3.Measured at room temperature after placing for 24±2 hours
Low temperature storage	Inductance change: Within ± 10% Without distinct damage in appearance	1. Temperature：-45 ± 2℃ 2. Time：1000 hours 3. Measured at room temperature after placing for 24±2 hours
High temperature storage	Inductance change: Within ± 10% Without distinct damage in appearance	1. Temperature：+125 ± 2℃ 2. Time：1000 hours 3. Measured at room temperature after placing for 24±2 hours

◆ Recommended Soldering Technologies

(1)Re-flowing Profile

Preheat condition: 150 ~200℃/60~120sec.

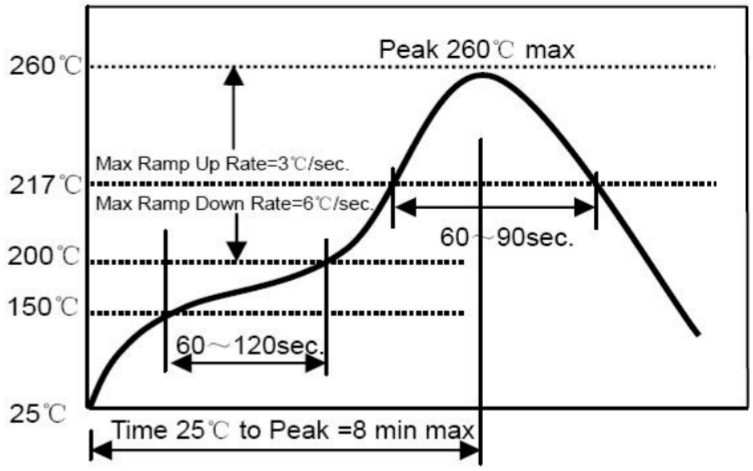
Allowed time above 217℃: 60~90sec.

Max temp: 260℃

Max time at max temp: 10 sec.

Solder paste: Sn/3.0Ag/0.5Cu

Allowed Reflow time: 2x max



(2)Iron Soldering Profile

Iron soldering power: Max. 30W

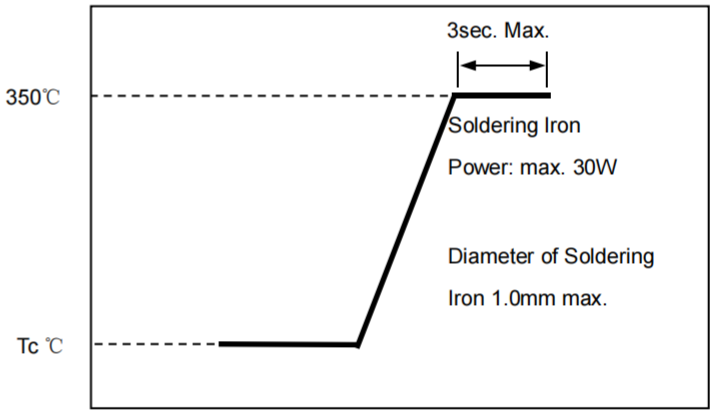
Pre-heating: 150℃/60sec.

Soldering Tip temperature: 350℃ Max.

Soldering time: 3sec. Max.

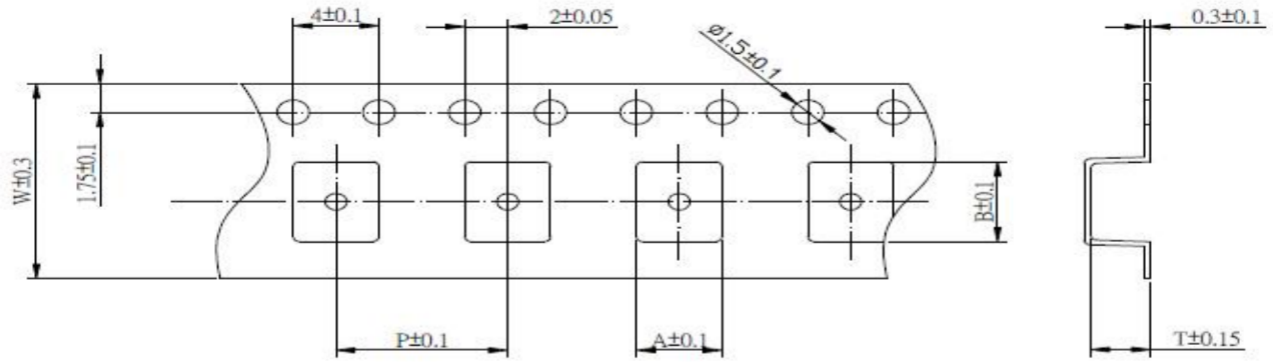
Solder paste: Sn/3.0Ag/0.5Cu

Max.1 times for iron soldering



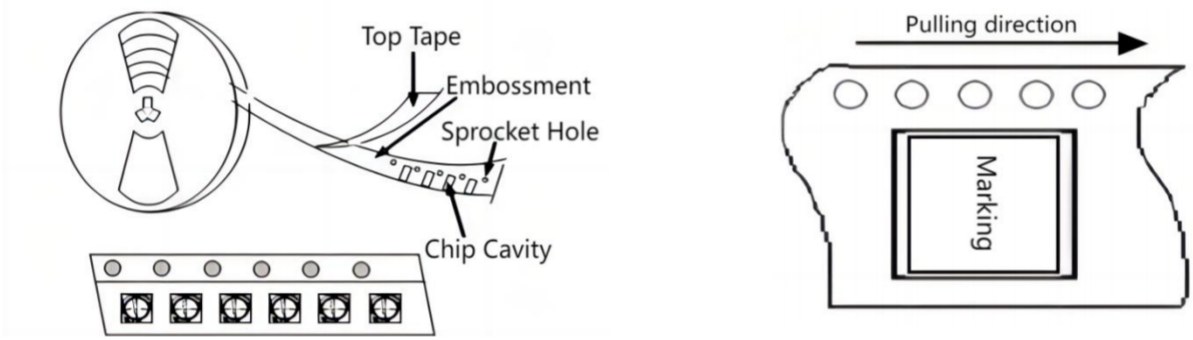
◆ Packaging Information

(1)Tape Packaging Dimensions(Unit：mm)

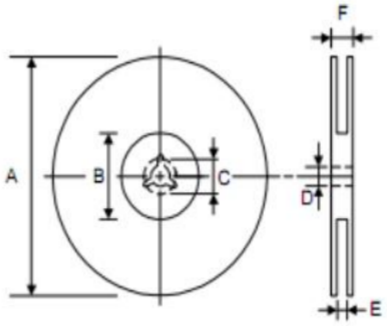


P	W	A	B	T
16.0	24.0	10.6	12.5	6.3

Taping Drawings (UNIT:mm)



(2) Reel Dimensions（Unit：mm）



A	B	C	D	E	F
330	100	20	13	25	29

(3) Packaging Quantity(PCS)

Type	Reel
SLO1060H Series	500 pcs / reel

(4) Peel force of top cover tape

The peel speed shall be about 300mm/minute

The peel force of top cover tape shall be between 0.1 to 1.3 N

