

# SMD Multilayer Chip Inductor for Choke



2.0 x 1.25 x 0.85mm  
/2.0 x 1.25 x 1.25mm

ASMCI-0805



RoHS  
Compliant

## FEATURES:

- Monolithic structure designed for high reliability
- Excellent solderability and heat resistance
- Magnetic shield designed to eliminate cross coupling
- High DC current and low DCR

## APPLICATIONS:

Choke circuits in DC power line for PC, mobile phones, digital cameras, camcorder, and music players.

## ELECTRICAL SPECIFICATIONS:

**Operating Temperature:** -40°C to +85°C

**Storage Temperature:** -10°C to +40°C, 70% RH max

Part Number ASMCI-0805- Inductance Code	Inductance	Tolerance	DCR	SRF Min.	Max. Rated Current	Tape and Reel Qty
Units	μH	%	Ω ± 30%	MHz	mA	
Symbol	L	M=±20%, N=±30%	DCR	SRF	Ir	
ASMCI-0805-R10	0.1	M, N	0.07	235	1000	4k
ASMCI-0805-R22	0.22	M, N	0.13	170	800	4k
ASMCI-0805-R47	0.47	M, N	0.18	125	550	4k
ASMCI-0805-1R0	1.0	M, N	0.20	75	300	4k
ASMCI-0805-2R2	2.2	M, N	0.28	50	220	4k
ASMCI-0805-4R7	4.7	M, N	0.30	25	180	4k
ASMCI-0805-100	10	M, N	0.50	15	60	3k

### Test Conditions

- Ambient Temperature: 20± 15°C
- Relative Humidity: 65%±20%
- Air Pressure: 86KPa to 106KPa

**Inductance (L):** High Accuracy RF Impedance/Material Analyzer-HP4291B+HP16192A or Equivalent, 1MHz, -20dBm or 50mV.

**Direct Current Resistance (DCR):** High Accuracy Milliohmeter-HP4338B or Equivalent

**Self-Resonant Frequency (SRF):** High Accuracy RF Impedance/Material Analyzer HP4291B+HP16192A or Equivalent, -20dBm or 50mV.

**Rated current (Ir):** HP6632B system DC power supply, HP4291B+HP16192A+HP16200A or equivalent.

Definition of Rated Current (Ir): Ir is the value of DC current as inductance L (μH) decreased just 50% against initial value.



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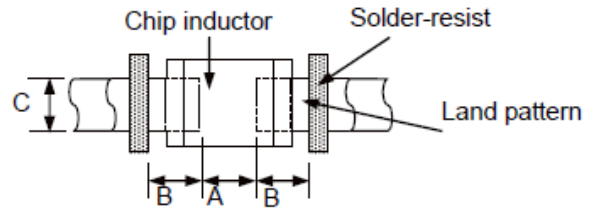
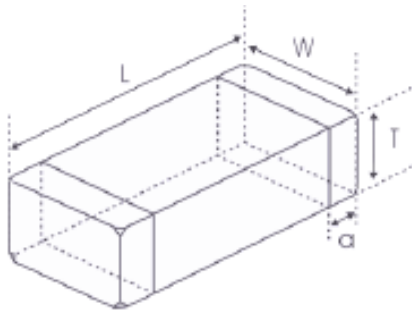
ASMCI-0805

## PART IDENTIFICATIONS:

ASMCI-0805 - [ ] - [ ]

Inductance Code	Tolerance	Packaging
Please refer to the table above	M: ±20%	T: Tape and Reel
	N: ±30%	(4kpcs / reel for 0.1~4.7μH; 3kpcs / reel for 10μH)

## OUTLINE DRAWING:



L	W	T	a
2.0 (+0.3, -0.1) [0.079 (+0.012, -0.004)]	1.25±0.2 [0.049±0.008]	0.85±0.2[0.033±0.008] for 0.1~4.7μH 1.25±0.2[0.049±0.008] for 10μH	0.5±0.3 [0.020±0.012]

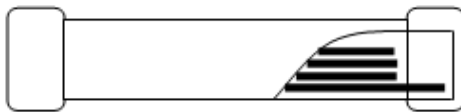
A	B	C
0.80~1.20	0.80~1.20	0.90~1.60

Dimension: mm [inch]

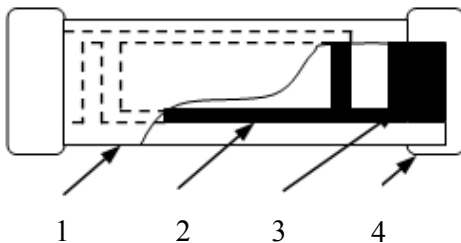
Dimension: mm

## MATERIALS:

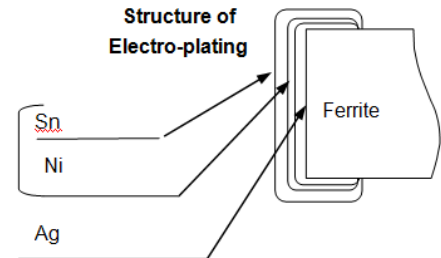
Side View



Top View



Structure of Electro-plating



	Part Name	Material
1	Base Material	Ferrite
2	Internal Conductor	Ag
3	Pull out Electrode	Ag
4	Terminal Electrode	Ag (Inner layer) Ni-Sn (Outer layer)

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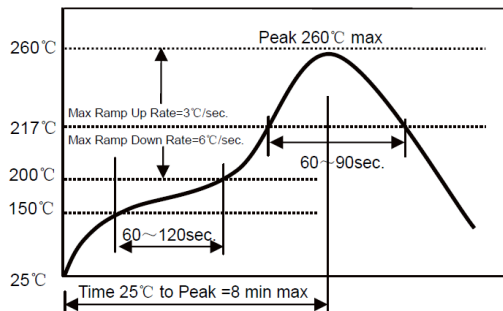
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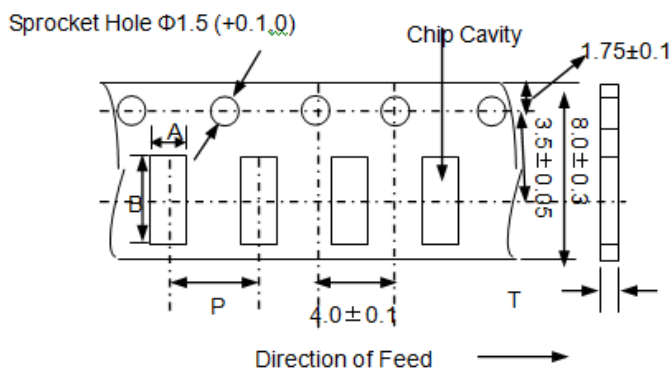
## REFLOW PROFILE:



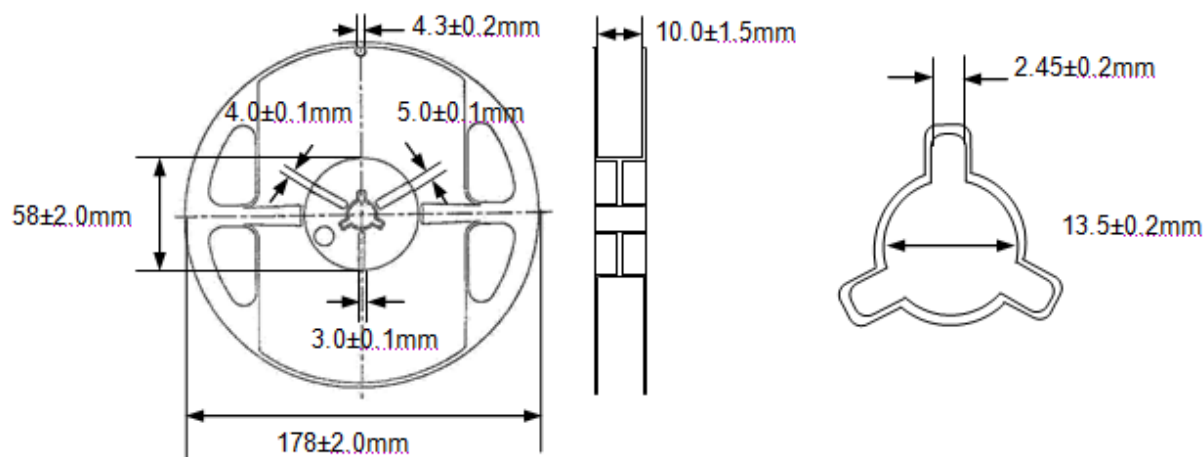
- Δ Preheat condition: 150 ~200°C /60~120sec.
- Δ Allowed time above 217°C: 60~90sec.
- Δ Max temp: 260°C
- Δ Max time at max temp: 10sec.
- Δ Solder paste: Sn/3.0Ag/0.5Cu
- Δ Allowed Reflow time: 2x max

## TAPE & REEL:

T: 4,000pcs / reel for 0.1~4.7μH; 3,000pcs / reel for 10μH



A	B	P	T(max)
$1.5 \pm 0.2$	$2.3 \pm 0.2$	$4.0 \pm 0.1$	1.1



Dimension: mm

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