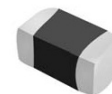


# SMD Multilayer Chip Inductor for Choke

ASMCI-0805



RoHS  
Compliant



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

## 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<br>ASMCI-0805-<br>Inductance Code | Inductance | Tolerance         | DCR     | SRF Min. | Max. Rated<br>Current | Tape and<br>Reel Qty |
|-----------------------------------------------|------------|-------------------|---------|----------|-----------------------|----------------------|
| Units                                         | μH         | %                 | Ω ± 30% | MHz      | mA                    |                      |
| Symbol                                        | L          | M=±20%,<br>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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## PART IDENTIFICATIONS:

ASMCI-0805 -  -

### Inductance Code

Please refer to the table above

### Tolerance

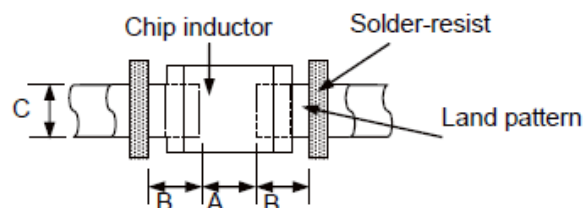
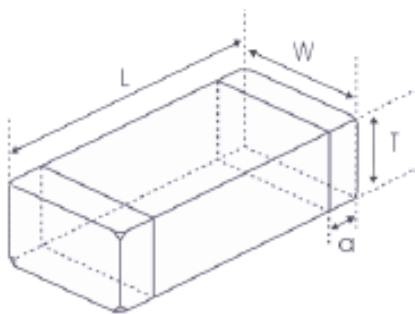
M:  $\pm 20\%$

N:  $\pm 30\%$

### Packaging

T: Tape and Reel  
(4kpcs / reel for 0.1~4.7 $\mu$ H;  
3kpcs / reel for 10 $\mu$ H)

## OUTLINE DRAWING:



| L                                            | W                                     | T                                                                                                         | a                                    |
|----------------------------------------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------|
| 2.0 (+0.3, -0.1)<br>[0.079 (+0.012, -0.004)] | 1.25 $\pm$ 0.2<br>[0.049 $\pm$ 0.008] | 0.85 $\pm$ 0.2[0.033 $\pm$ 0.008] for 0.1~4.7 $\mu$ H<br>1.25 $\pm$ 0.2[0.049 $\pm$ 0.008] for 10 $\mu$ H | 0.5 $\pm$ 0.3<br>[0.020 $\pm$ 0.012] |

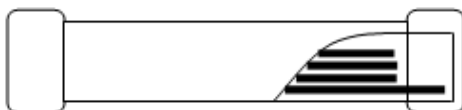
| A         | B         | C         |
|-----------|-----------|-----------|
| 0.80~1.20 | 0.80~1.20 | 0.90~1.60 |

Dimension: mm [inch]

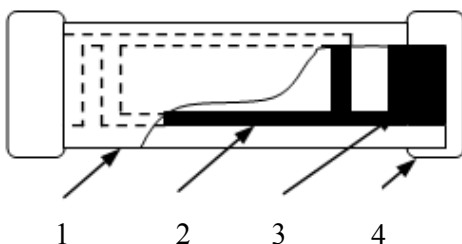
Dimension: mm

## MATERIALS:

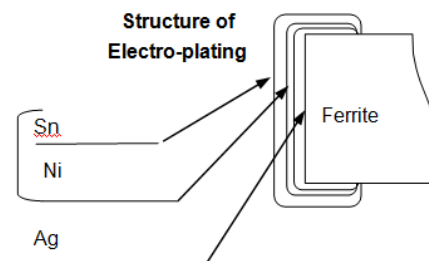
Side View



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)<br>Ni-Sn (Outer layer) |

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# SMD Multilayer Chip Inductor for Choke

ASMCI-0805

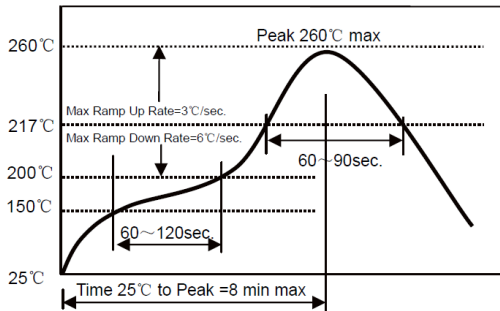


RoHS  
Compliant



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

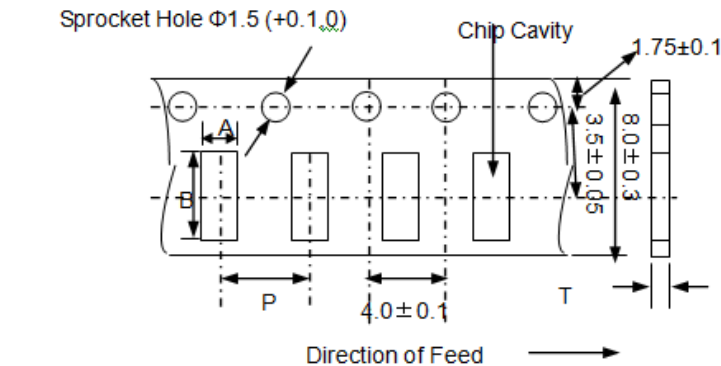
## REFLOW PROFILE:



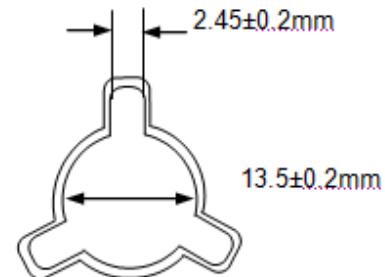
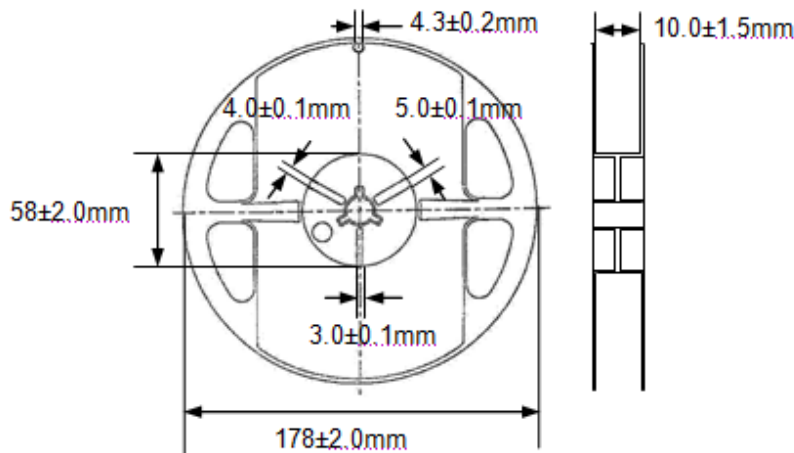
- Δ Preheat condition: 150 ~200°C /60~120sec.
- Δ Allowed time above 217°C: 60~90sec.
- Δ Max temp: 260°C
- Δ Max time at max temp: 10sec.
- Δ Solder paste: Sn/3.0Ag/0.5Cu
- Δ Allowed Reflow time: 2x max

## TAPE & REEL:

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



| A       | B       | P       | T(max) |
|---------|---------|---------|--------|
| 1.5±0.2 | 2.3±0.2 | 4.0±0.1 | 1.1    |



**Dimension: mm**

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