

ASMCI-0805-4R7N-T Datasheet

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| ASMCI-0805-4R7N-T-DG |
|---|
| Abracon LLC |
| ASMCI-0805-4R7N-T |
| FIXED IND 4.7UH 180MA 300MOHM SM |
| 4.7 μH Shielded Multilayer Inductor 180 mA 300mO hm 0805 (2012 Metric) |
| |

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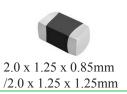
Purchase and inquiry

| Manufacturer Product Number: | Manufacturer: |
|---------------------------------------|------------------------------|
| ASMCI-0805-4R7N-T | Abracon LLC |
| Series: | Product Status: |
| ASMCI-0805 | Active |
| Туре: | Material - Core: |
| Multilayer | Ferrite |
| Inductance: | Tolerance: |
| 4.7 μH | ±30% |
| Current Rating (Amps): | Current - Saturation (Isat): |
| 180 mA | |
| Shielding: | DC Resistance (DCR): |
| Shielded | 300mOhm |
| Q @ Freq: | Frequency - Self Resonant: |
| | 25MHz |
| Ratings: | Operating Temperature: |
| | -40°C ~ 85°C |
| Inductance Frequency - Test: | Mounting Type: |
| 1 MHz | Surface Mount |
| Package / Case: | Supplier Device Package: |
| 0805 (2012 Metric) | 0805 (2012 Metric) |
| Size / Dimension: | Height - Seated (Max): |
| 0.079" L x 0.049" W (2.00mm x 1.25mm) | 0.041" (1.05mm) |
| | |

Environmental & Export classification

| RoHS Status: | Moisture Sensitivity Level (MSL): |
|------------------|-----------------------------------|
| ROHS3 Compliant | 1 (Unlimited) |
| REACH Status: | ECCN: |
| REACH Unaffected | EAR99 |
| HTSUS: | |
| 8504.50.8000 | |

SMD Multilayer Chip Inductor for Choke



ASMCI-0805



► **APPLICATIONS**:

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

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

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 | % | $\Omega\pm30\%$ | 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

a. Ambient Temperature: $20\pm 15^{\circ}C$

b. Relative Humidity: 65%±20%

c. Air Pressure: 86KPa to 106KPa

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

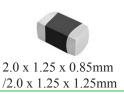
Direct Current Resistance (DCR): High Accuracy Milliohmeter-HP4338B or Equivalent **Self-Resonant Frequency (SRF):** High Accuracy RF Impedance/Material Analyzer HP4291B+HP16192A or Equivalent, -20dBm or 50mV.

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 (μ H) decreased just 50% against initial value.

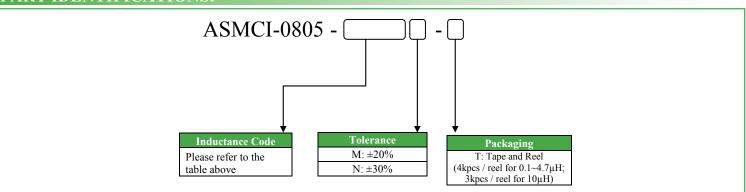


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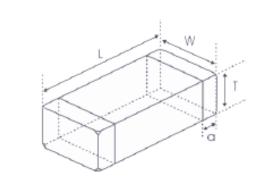


ASMCI-0805





OUTLINE DRAWING:



| Chip | | Solde | Land p | attern |
|------|---|-------|--------|--------|
| | А | В | С | |
| | | | | |

0.80~1.20

RoHS

Compliant

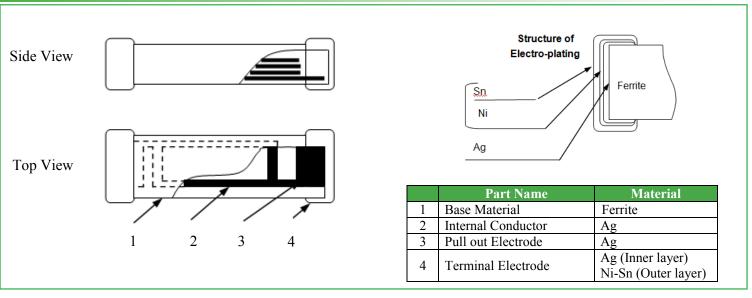
| L | W | Т | а |
|--------------------------|---------------|--|---------------|
| 2.0 (+0.3, -0.1) | 1.25±0.2 | $0.85{\pm}0.2[0.033{\pm}0.008]$ for $0.1{\sim}4.7{\mu}H$ | 0.5±0.3 |
| [0.079 (+0.012, -0.004)] | [0.049±0.008] | 1.25±0.2[0.049±0.008] for 10µH | [0.020±0.012] |

Dimension: mm

0.80~1.20 0.90~1.60

► MATERIALS:

Dimension: mm [inch]

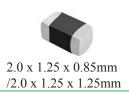






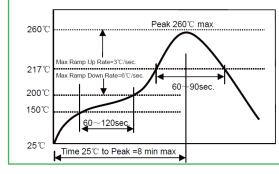
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REFLOW PROFILE:



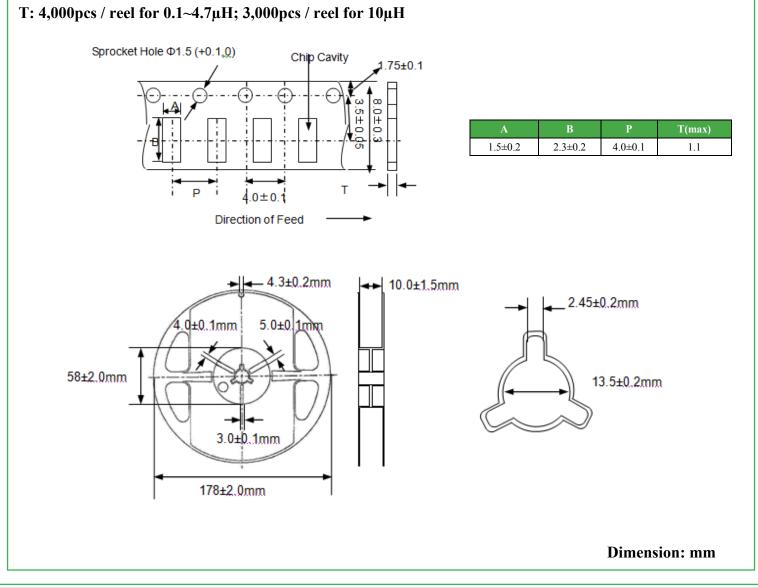
 Δ Preheat condition: 150 ~200°C /60~120sec.

RoHS

Compliant

- 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:



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