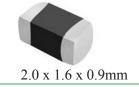
SMD Multilayer Chip Power Inductor

ASMPH-0806





> FEATURES:

- High DC bias current due to trench technology
- Much lower profile than any other series
- Monolithic structure for high reliability
- Excellent solderability and heat resistance
- Magnetically shielded structure to eliminate cross coupling

► APPLICATIONS:

ASMPH family is a miniature type of multilayer power inductors constructed using low loss ferite material to support high-speed switching frequencies. The compact size and high efficiency is ideal for DC/DC converter applications in space limited boards.

- Switching mode regulators for smart phones and cameras.
- Buck converters for RFIC, RFPA and Audio Codec modules.
- Boost converters for flash drivers.
- Wireless cards, DVD players and other electronic devices.

ELECTRICAL SPECIFICATIONS:

Operating Temperature: -40°C to +85°C

Storage Temperature: -10°C to +40°C, RH 70% (Max.)

Part Number ASMPH-0806- Inductance Code	Inductance	Tolerance	DCR	SRF Min.	Temperature Rise Current (max)	Saturation Current (Typ)
Units	μH	%	$\Omega \pm 25\%$	MHz	mA	mA
Symbol	L	M=±20% N=±30%	DCR	SRF	I_{rms}	I _{sat}
ASMPH-0806-R47	0.47	M, N	0.08	100	1500	1600
ASMPH-0806-1R0	1.0	M, N	0.09	70	1400	1200
ASMPH-0806-1R5	1.5	M, N	0.11	60	1200	700
ASMPH-0806-2R2	2.2	M, N	0.11	50	1200	500
ASMPH-0806-3R3	3.3	M, N	0.12	40	1200	330
ASMPH-0806-4R7	4.7	M, N	0.14	30	1100	220

Unless otherwise specified, the standard atmospheric conditions for measurement/test as:

a. Ambient Temperature: 20±15°C b. Relative Humidity: 65±20% c. Air Pressure: 86 kPa to 106 kPa

Inductance (L): HP4291B+HP16192A or Equivalent, tested at 1MHz, -20dBm or 50mV.

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

Self-Resonant Frequency (SRF): HP4291B+HP16192A or Equivalent, -20dBm or 50mV. **Temperature Rise current (Irms):** Electric Power, Electric current meter, Thermometer.

Irms is the value of DC current as chip surface temperature rose just 40°C against chip initial surface temperature.

Saturation Current (Isat): HP6632B system DC power supply, HP4291B+HP16192A+HP16200A or equivalent.

Isat is the value of DC current as inductance decreased just 30% against initial value

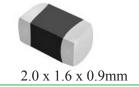




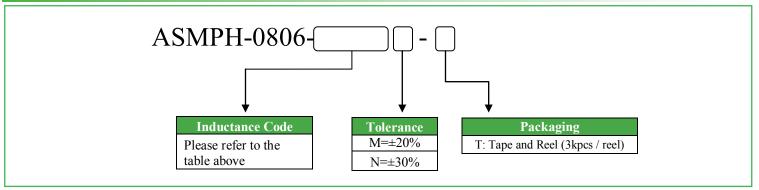
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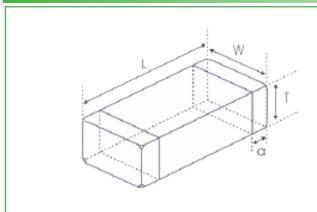






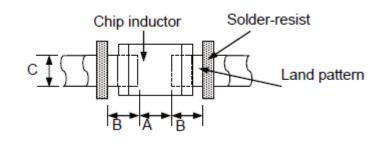


OUTLINE DRAWING:



L	W	T	a
2.0 (+0.3, -0.1)	1.6±0.2	0.9±0.1	0.5±0.3

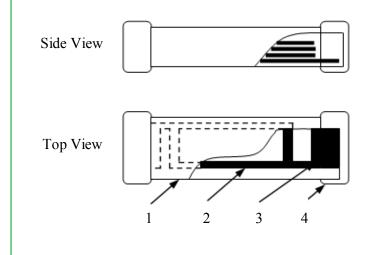
Recommended Land Pattern

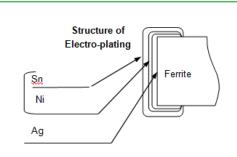


A	В	C
0.8~1.2	0.8~1.2	1.2~2.0

Dimension: mm

> MATERIALS:





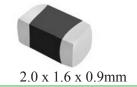
	Part Name	Material
1	Base Material	Ferrite
2	Internal Conductor	Ag
3	Pull out Electrode	Ag
4	Terminal Electrode	Ag (Inner layer) Ni-Sn (Outer layer)



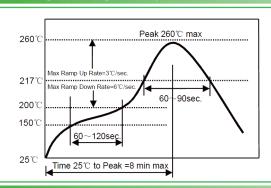
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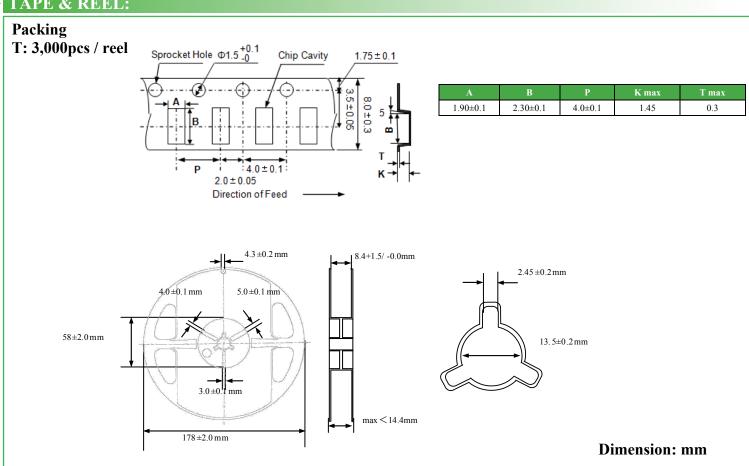


> REFLOW PROFILE:



Preheat Condition	150 to 200 °C; 60 to 120 sec.
Allowed time above 217 °C	60 to 90 sec.
Max temperature	260 °C
Max time at max temperature	10 sec.
Solder paste	Sn/3.0Ag/0.5Cu
Allowed Reflow time	2x max.

➤ TAPE & REEL:



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