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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# SMD Multilayer Chip Power Inductor

ASMPH-1008



RoHS/RoHS II Compliant



2.5 x 2.0 x 0.9mm

## 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 ferrite 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 and RH 70% (Max.)

Part Number ASMPH-1008- Inductance Code	Inductance	Tolerance	DCR	SRF Min.	Temperature Rise Current (max)	Saturation Current (Typ)
Units	μH	%	Ω ± 25%	MHz	mA	mA
Symbol	L	M=±20% N=±30%	DCR	SRF	I <sub>rms</sub>	I <sub>sat</sub>
ASMPH-1008-R47	0.47	M, N	0.04	105	1800	1500
ASMPH-1008-1R0	1.0	M, N	0.06	70	1600	1400
ASMPH-1008-1R5	1.5	M, N	0.07	65	1500	1200
ASMPH-1008-2R2	2.2	M, N	0.08	55	1300	850
ASMPH-1008-3R3	3.3	M, N	0.10	30	1200	450
ASMPH-1008-4R7	4.7	M, N	0.11	25	1100	320

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

- Ambient Temperature: 20±15°C
- Relative Humidity: 65±20%
- 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 (I<sub>rms</sub>):** Electric Power, Electric current meter, Thermometer.

I<sub>rms</sub> is the value of DC current as chip surface temperature rose just 40°C against chip initial surface temperature.

**Saturation Current (I<sub>sat</sub>):** HP6632B system DC power supply, HP4291B+HP16192A+HP16200A or equivalent.

I<sub>sat</sub> is the value of DC current as inductance decreased just 30% against initial value



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## PART IDENTIFICATIONS:

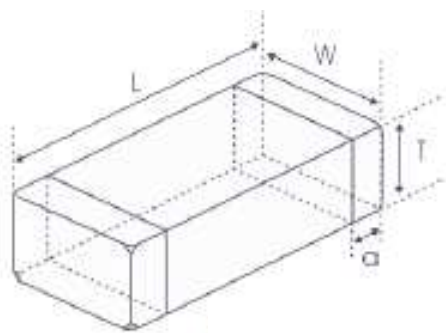
ASMPH-1008- - - 

**Inductance Code**  
Please refer to the table above

**Tolerance**  
M=±20%  
N=±30%

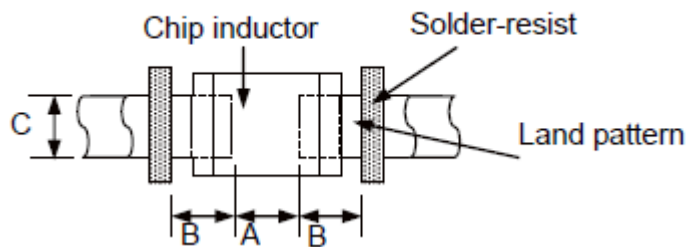
**Packaging**  
T: Tape and Reel (3kpcs / reel)

## OUTLINE DRAWING:



L	W	T	a
2.5±0.2	2.0(+0.3, -0.1)	0.9±0.1	0.5±0.3

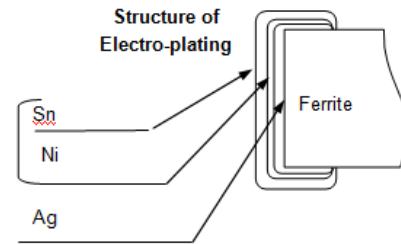
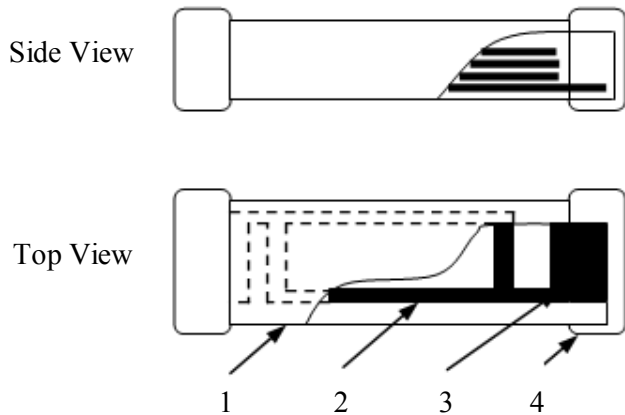
## Recommended Land Pattern



A	B	C
1.0~1.4	0.6~1.0	1.8~2.2

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)

# SMD Multilayer Chip Power Inductor



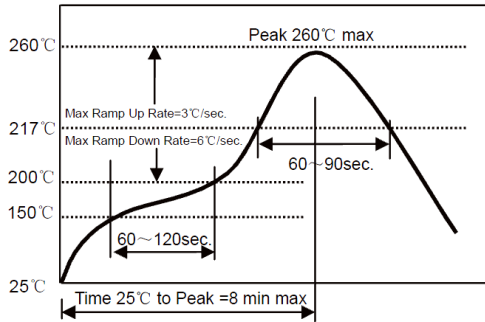
2.5 x 2.0 x 0.9mm

ASMPH-1008



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## REFLOW PROFILE:

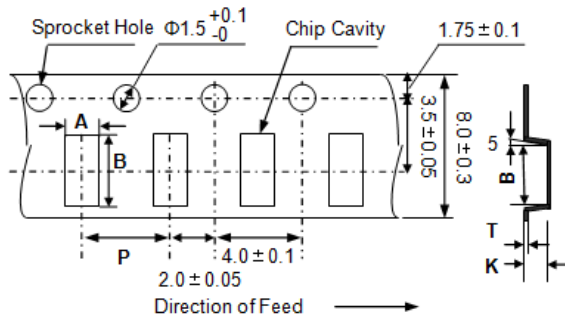


Preheat Condition	150 to 200 °C; 60 to 120 sec.
Allowed time above 217 °C	60 to 90 sec.
Max temperature	260 °C
Max time at max temperature	10 sec.
Solder paste	Sn/3.0Ag/0.5Cu
Allowed Reflow time	2x max.

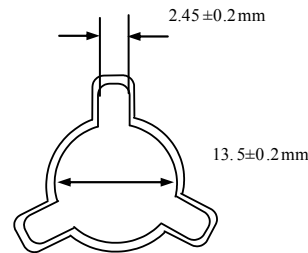
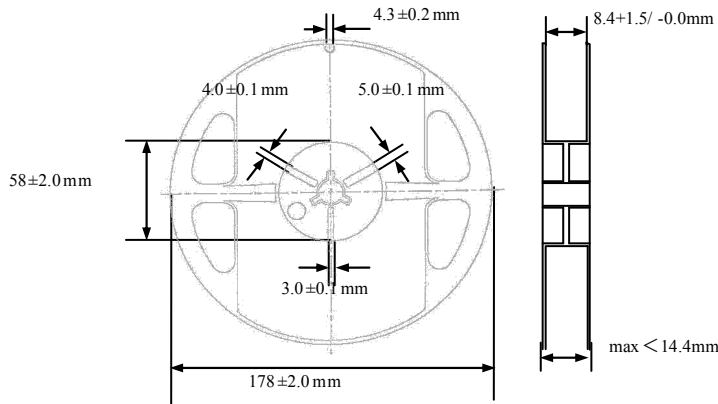
## TAPE & REEL:

### Packing

T: 3,000pcs / reel



A	B	P	K max	T max
2.30±0.1	2.80±0.1	4.0±0.1	1.45	0.3



Dimension: mm

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