



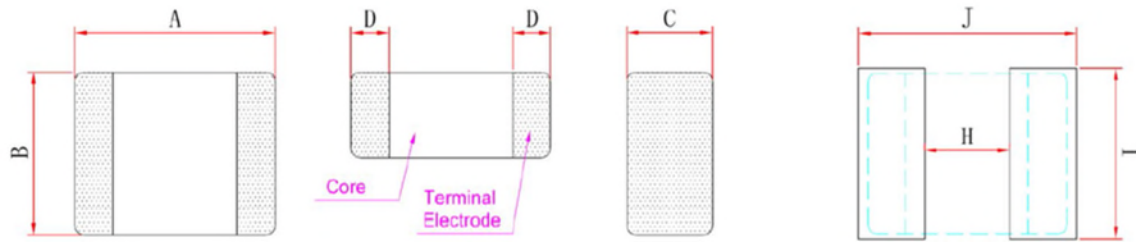
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**Shielded SMT High Current Power Inductor  
AEC-Q200 standard compliance  
SPHM2016 series**

**■ SHAPES AND DIMENSIONS**



Unit: mm

Item	A	B	C	D	H	I	J
SPHM201610	2.0±0.3	1.6±0.3	0.8±0.2	0.5±0.3	0.7	1.8	2.3
SPHM201612	2.0±0.3	1.6±0.3	1.0±0.2	0.5±0.3	0.7	1.8	2.3

**■ PART NUMBER CODE**

**SPHM 201610 - 1R0 M A**  
**1      2                      3      4      5**

1. Series Name
2. Size Code
3. Inductance(R=Decimal Point) Unit :  $\mu\text{H}$  ; 1R0 =1.0uH
4. Inductance tolerance: "M"±20%
5. Soldering : A=Lead Free



## ■ ELECTRICAL CHARACTERISTICS

### 1. Part Number and Characteristics Table

Part No.	Inductance L0 ( uH )	Tolerance (±%)	DCR(mΩ)		Isat(A)		Irms(A)	
			Typ.	Max.	Typ.	Max.	Typ.	Max.
SPHM201610-1R0MA	1.0	20	52	63	3.4	2.9	2.4	2.1
SPHM201610-2R2MA	2.2	20	159	185	2.3	2.0	1.6	1.4

Part No.	Inductance L0 ( uH )	Tolerance (±%)	DCR(mΩ)		Isat(A)		Irms(A)	
			Typ.	Max.	Typ.	Max.	Typ.	Max.
SPHM201612-1R0MA	1.0	20	53	65	3.3	2.9	2.5	2.3
SPHM201612-2R2MA	2.2	20	101	125	2.4	2.1	1.8	1.6

Note 1: Referenced ambient temperature 25°C .

Note 2: Test Condition :1MHz ,1.0 Vrms.

Note 3: Isat (Typ): DC current ( A ) that will cause L0 to drop approximately 30%

Isat (Max): DC current ( A ) that will cause L0 to drop 30% Max

Irms (Typ): DC current ( A ) that will cause an approximate ΔT of 40°C

Irms (Max): DC current ( A ) that will cause an ΔT of 40°C Max

Note 4: Operating temperature range includes self-temperature rise.

Note 5: The rated current as listed is either the saturation current or the heating current depending on which value is lower.

Note 6: Withstand voltage 20V DC.

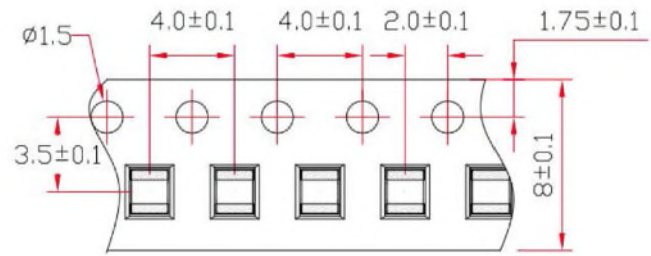
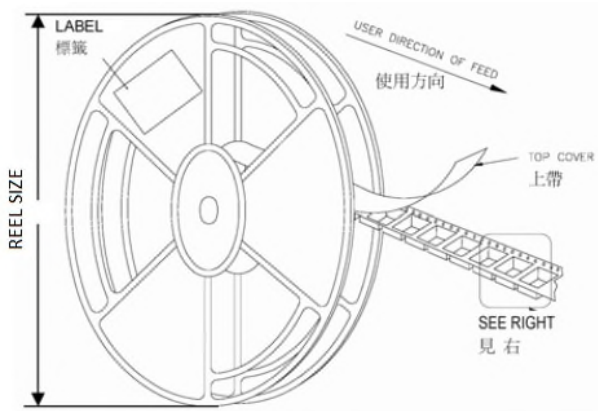
### 2. Test equipments

- 2.1. L: Agilent E4980 Precision LCR meter (Upgraded version of Agilent HP4284A) with HP42841A Current Source
- 2.2. DCR: Milliohm Meter
- 2.3. Operating temperature: -55°C to 125°C

\* Equivalent measurement equipment may be used.



## ■ REEL DIMENSIONS AND PACKAGING QUANTITY



Unit: mm

TYPE	W	P	REEL SIZE	PCS / REEL
<b>SPHM201610 series</b>	8	4	178 mm	3000
<b>SPHM201612 series</b>	8	4	178 mm	3000