



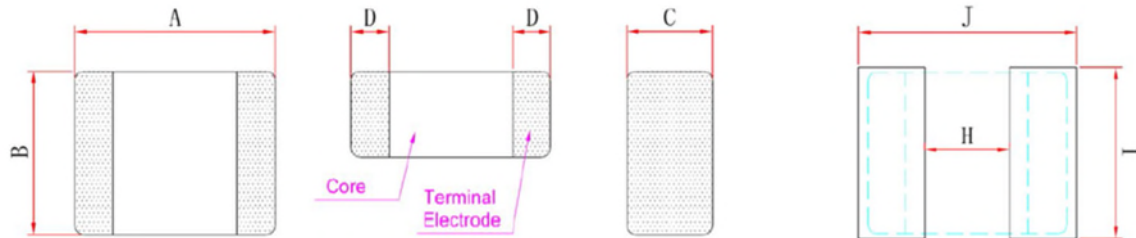
# INDEX

SHAPES AND DIMENSIONS.....	1
PART NUMBER CODE .....	1
ELECTRICAL CHARACTERISTICS.....	2
REEL DIMENSIONS AND PACKAGING QUANTITY .....	3



## Shielded SMT High Current Power Inductor AEC-Q200 standard compliance SPHM2520 series

### ■ SHAPES AND DIMENSIONS



Unit: mm

Item	A	B	C	D	H	I	J
SPHM252010	2.5±0.3	2.0±0.3	0.8±0.2	0.6±0.3	1.2	2.3	2.8
SPHM252012	2.5±0.3	2.0±0.3	1.0±0.2	0.6±0.3	1.2	2.3	2.8

### ■ PART NUMBER CODE

**SPHM** **252010** - **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.
SPHM252010-2R2MA	2.2	20	83	100	2.7	2.4	2.3	2.1

Part No.	Inductance L0 ( uH )	Tolerance (±%)	DCR(mΩ)		Isat(A)		Irms(A)	
			Typ.	Max.	Typ.	Max.	Typ.	Max.
SPHM252012-R47MA	0.47	20	17	21	6.5	6.0	4.5	4.1
SPHM252012-1R0MA	1.0	20	35	42	4.7	4.2	3.6	3.2
SPHM252012-1R5MA	1.5	20	55	65	3.9	3.5	3.0	2.6
SPHM252012-2R2MA	2.2	20	84	95	3.3	3.0	2.6	2.3
SPHM252012-3R3MA	3.3	20	130	145	2.5	2.1	2.2	2.0
SPHM252012-4R7MA	4.7	20	186	210	1.9	1.7	1.3	1.1

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

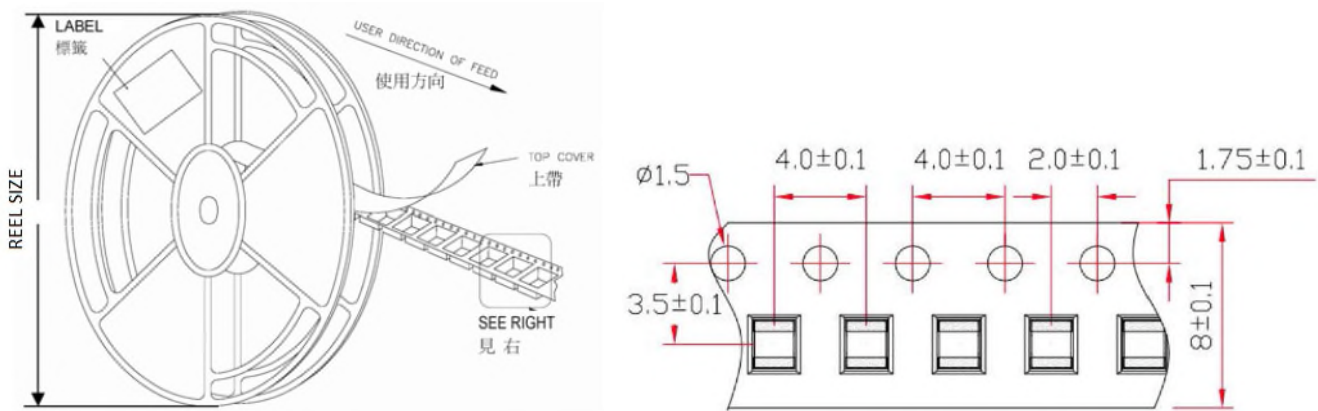
2.2. DCR: Milliohm Meter

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>SPHM252010 series</b>	8	4	178 mm	3000
<b>SPHM252012 series</b>	8	4	178 mm	3000