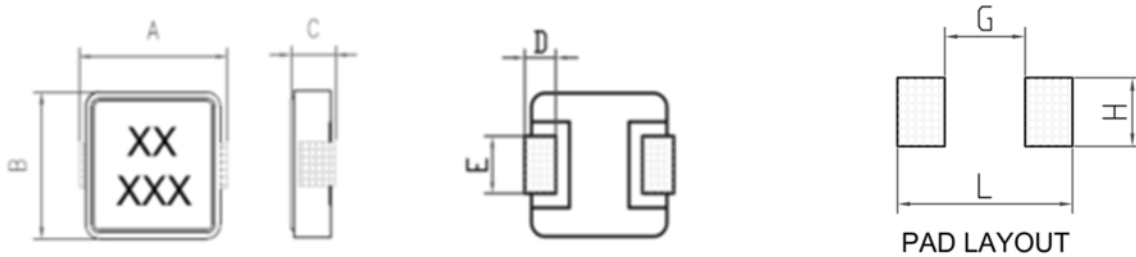




**Shielded SMT High Current Power Inductor**  
Automotive reliability comply with AEC-Q200 grade 1  
**SPIM1004F series**

**■ SHAPES AND DIMENSIONS**



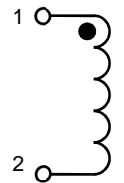
Unit: mm

Item	A	B	C	D	E	G	H	L
SPIM1004F	11.0±0.5	10±0.3	3.8±0.2	2.3±0.3	3.0±0.5	5.4	4.5	12.4

Marking :

XX = MF  
XXX = Inductance

Schematic :



**■ PART NUMBER CODE**

**SPIM   1004   F   -   1R0   M   A**  
**1        2        3            4        5        6**

1. Series Name
2. Size Code
3. Material Code
4. Inductance(R=Decimal Point) Unit : μH ; 1R0 =1.0uH
5. Inductance tolerance: "M"±20%
6. Soldering : A=Lead Free



## ■ ELECTRICAL CHARACTERISTICS

### 1. Part Number and Characteristics Table

Part No.	Inductance L0 ( uH )	DCR(mΩ)		Isat(A)		Irms(A)	
		Typ.	Max.	Typ.	Max.	Typ.	Max.
SPIM1004F-1R0MA	1.0	2.85	3.3	35.0	28.0	21.0	18.0
SPIM1004F-2R2MA	2.2	7.6	8.5	23.0	20.0	15.0	13.0
SPIM1004F-3R3MA	3.3	10.4	11.8	20.0	16.0	12.0	10.0
SPIM1004F-4R7MA	4.7	13.4	16.0	17.0	14.0	10.0	9.0
SPIM1004F-100MA	10.0	29.0	35.0	9.5	6.0	8.0	7.0
SPIM1004F-150MA	15.0	40.0	48.0	8.0	5.5	6.0	5.0
SPIM1004F-220MA	22.0	60.1	66.0	6.0	4.5	5.0	4.0
SPIM1004F-330MA	33.0	93.0	98.0	5.5	4.3	4.5	3.5
SPIM1004F-470MA	47.0	139.0	155.0	3.6	3.2	3.3	3.0

Note 1: Referenced ambient temperature 25°C .

Note 2: Test Condition :100kHz ,0.25 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.

### 2. Test equipments

2.1. L: Wayne kerr 3260B LCR meter, Wayne kerr 3265B bias current source.

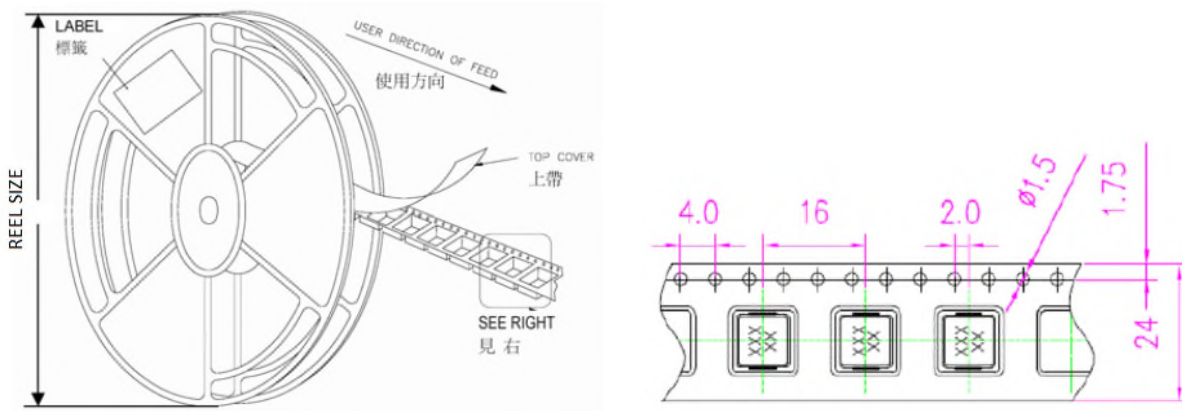
2.2. DCR: Chroma16502 Milliohm Meter

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
SPIM1004F series	24	16	330 mm (13")	900