

## (II) MULTILAYER CHIP INDUCTORS

### 3. MCIS Series (Ferrite Type, High Current)

Range of Size: (2012(0805)~2520(1008))

Test Equipment : E4991A IMPEDANCE ANALYZER

Operating Temperature : -55 ~+125

The max. rated current: the DC current value having temp. increased 40 after thro. DC current 2 hours at ambient temp.

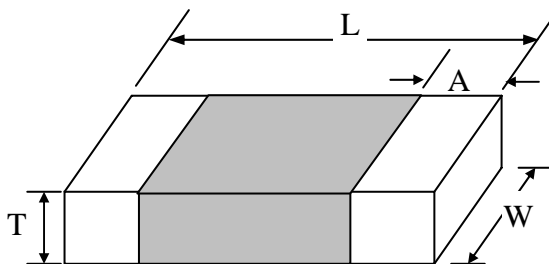


#### Features

- > Excellent solderability and high heat resistance for either flow or reflow soldering.
- > High reliability due to an entirely monolithic structure.
- > No cross coupling between inductors due to magnetic shield. Ideal for high density installation.
- > Multilayer chip inductors use magnetic material and multilayer technology in producing revolutionary inductors which do not use any wire windings. Ferrite paste and electric conductor paste are alternately layered and sintered into a completely monolithic structure to form an inductor with a perfectly closed magnetic circuit and an excellent magnetic shield.
- > Used in DC-DC converters and power module for equipment such as cellular phone, PDA, DSC & DVD...

#### General Dimensions and Configuration

##### SHAPE:



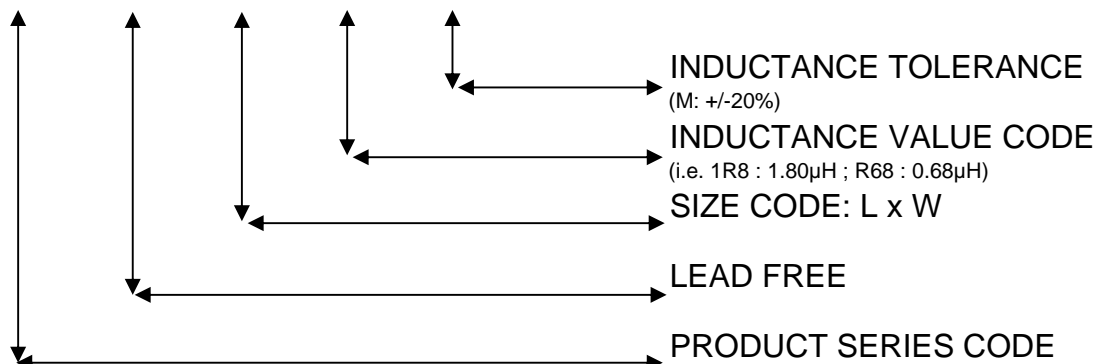
Unit: mm

##### DIMENSIONS:

SHAPE	L (m/m)	W (m/m)	T (m/m)	A (m/m)	Net Weight (mg)
2012(0805)	2.00±0.20	1.25±0.20	0.90±0.10	0.30~0.70	12.00
2016(0806)	2.00±0.15	1.60±0.15	0.90±0.10	0.30~0.70	15.50
2520(1008)	2.50±0.20	2.00±0.20	0.90±0.10	0.40~0.80	21.76

#### Part Numbering Systems

MCI S 2016 - 1R8 M



## (II) MULTILAYER CHIP INDUCTORS

Tri-Tron

### 3. MCIS Series (Ferrite Type, High Current) (Size: 2016 (0806))

#### Electrical Characteristics

Part No.	Inductance( $\mu$ H) Tolerance	Test Freq. (MHz)@250mV	Self-Resonant Freq.(MHz) Min.	DC Resistance	Rated Current * mA (Max.)	Thickness (m/m)
MCIS2016-R47M	0.47 $\pm$ 20%	1.00	100	0.14 $\pm$ 30%	1500	0.90 $\pm$ 0.10
MCIS2016-R68M	0.68 $\pm$ 20%	1.00	90	0.15 $\pm$ 30%	1500	0.90 $\pm$ 0.10
MCIS2016-R82M	0.82 $\pm$ 20%	1.00	80	0.16 $\pm$ 30%	1500	0.90 $\pm$ 0.10
MCIS2016-1R0M	1.00 $\pm$ 20%	1.00	60	0.16 $\pm$ 30%	1400	0.90 $\pm$ 0.10
MCIS2016-1R2M	1.20 $\pm$ 20%	1.00	60	0.16 $\pm$ 30%	1400	0.90 $\pm$ 0.10
MCIS2016-1R5M	1.50 $\pm$ 20%	1.00	50	0.20 $\pm$ 30%	1200	0.90 $\pm$ 0.10
MCIS2016-1R8M	1.80 $\pm$ 20%	1.00	50	0.20 $\pm$ 30%	1200	0.90 $\pm$ 0.10
MCIS2016-2R2M	2.20 $\pm$ 20%	1.00	40	0.22 $\pm$ 30%	1200	0.90 $\pm$ 0.10
MCIS2016-3R3M	3.30 $\pm$ 20%	1.00	30	0.24 $\pm$ 30%	1100	0.90 $\pm$ 0.10
MCIS2016-3R9M	3.90 $\pm$ 20%	1.00	30	0.28 $\pm$ 30%	1100	0.90 $\pm$ 0.10
MCIS2016-4R7M	4.70 $\pm$ 20%	1.00	20	0.30 $\pm$ 30%	1100	0.90 $\pm$ 0.10

#### Remarks(\*):

1. Rated Current :

The max. rated current: the DC current value having temp. increased 40 after thro. DC current 2 hours at ambient temp.

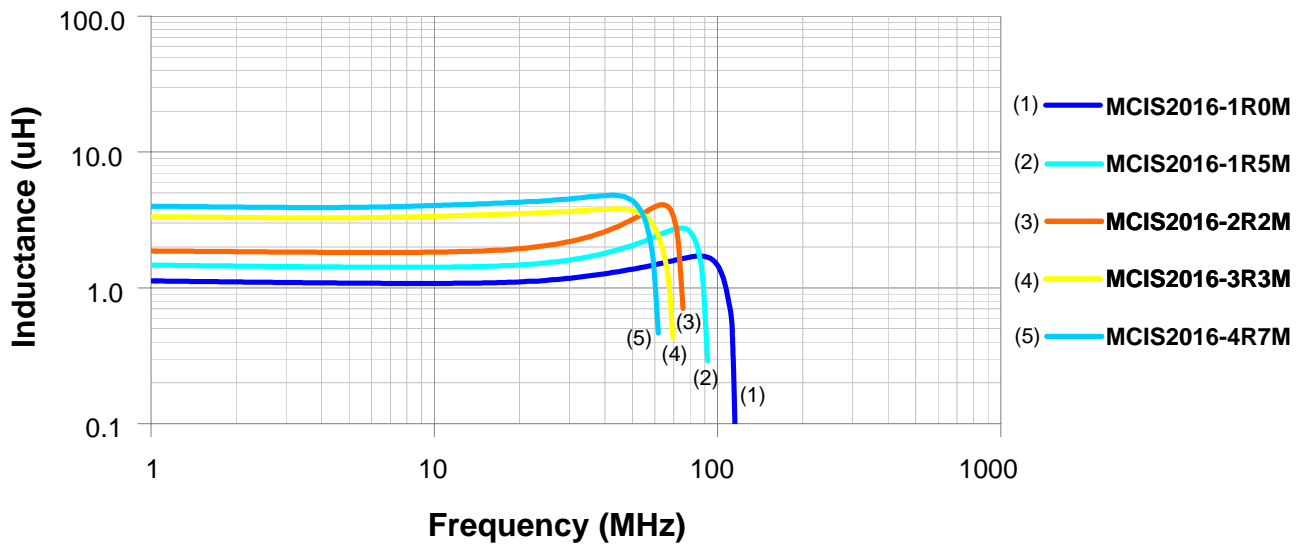
#### Notes:

1. Test Frequency : 1.0MHz / 250mV
2. Test equipment : E4991A IMPEDANCE ANALYZER
3. Inductance Tolerance : M ( $\pm$ 20%)
4. Operating temperature range : -55 ~+125

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Rating Curves

Inductance vs Frequency



Inductance vs DC Bias Current

