



## Radial Leaded Type Power Inductors For V-co Power Supply(Wound, Magnetic Shielded)



### FEATURES

- High power handling capability: Small copper loss  
Using large saturation induction of Ferrite metals
- Wide operating temperature range
- Low core loss for high frequency switching

### APPLICATIONS

Personal computers, Graph card VRMs, etc.

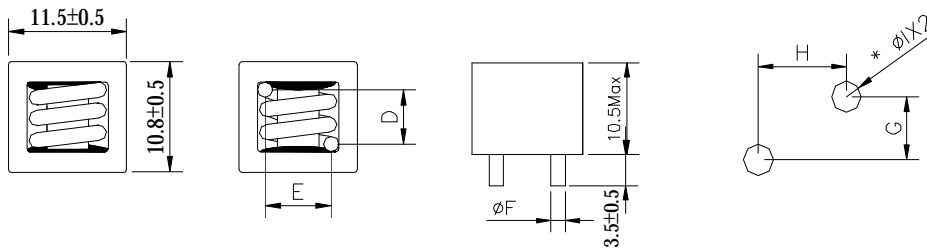
### PRODUCT IDENTIFICATION

MSQ-1211-R36 M

❶    ❷    ❸    ❹

- ❶ Product Code
- ❷ Dimensions Code
- ❸ Inductance Code
- ❹ Tolerance Code

### DIMENSIONS and RECOMMENDED PC BOARD PATTERN



MSQ-1211	D(mm)	E(mm)	F(mm)	G(mm)	H(mm)	$\phi E$ (mm)
-R20M	5.0 $\pm$ 0.5	6.0 $\pm$ 0.5	1.5 $\pm$ 0.1	5.0	6.0	1.75
-R25M	5.0 $\pm$ 0.5	6.0 $\pm$ 0.5	1.5 $\pm$ 0.1	5.0	6.0	1.75
-R36M	5.0 $\pm$ 0.5	6.0 $\pm$ 0.5	1.5 $\pm$ 0.1	5.0	6.0	1.75
-R47M	5.0 $\pm$ 0.5	6.0 $\pm$ 0.5	1.5 $\pm$ 0.1	5.0	6.0	1.75
-R60M	5.0 $\pm$ 0.5	6.0 $\pm$ 0.5	1.5 $\pm$ 0.1	5.0	6.0	1.75
-1R2M	6.0 $\pm$ 0.5	7.0 $\pm$ 0.5	1.0 $\pm$ 0.1	6.0	7.0	1.25
-1R5M	6.0 $\pm$ 0.5	7.0 $\pm$ 0.5	1.0 $\pm$ 0.1	6.0	7.0	1.25
-3R0M	6.0 $\pm$ 0.5	7.0 $\pm$ 0.5	0.75 $\pm$ 0.1	6.0	7.0	1.0

### ELECTRICAL CHARACTERISTICS

Part No.	Inductance ( $\mu$ H)	Inductance tolerance(%)	Test Frequency (kHz)	DC resistance (m $\Omega$ )	Rated current*	
					Idc1(A) Max.	Idc2(A) Typ.
MSQ-1211-R20M	0.20	$\pm$ 20	100	0.72 $\pm$ 6%	40.0	40.0
MSQ-1211-R25M	0.25	$\pm$ 20	100	0.72 $\pm$ 6%	40.0	40.0
MSQ-1211-R36M	0.36	$\pm$ 20	100	0.72 $\pm$ 6%	40.0	40.0
MSQ-1211-R47M	0.47	$\pm$ 20	100	0.90 $\pm$ 6%	40.0	35.0
MSQ-1211-R60M	0.60	$\pm$ 20	100	0.90 $\pm$ 6%	30.0	35.0
MSQ-1211-1R2M	1.2	$\pm$ 20	100	3.15 $\pm$ 20%	25.0	20.0
MSQ-1211-1R5M	1.5	$\pm$ 20	100	3.15 $\pm$ 20%	24.0	20.0
MSQ-1211-3R0M	3.0	$\pm$ 20	100	7.31 $\pm$ 20%	18.0	10.0

\* Rated current: Idc1: DC current flows and the nominal value of inductance has fallen by 30% Max.

Idc2 : Value obtained when current flows and the temperature has risen to 40°C Typ.

Operating temperature range: -40 to +105°C (Including self-temperature rise)



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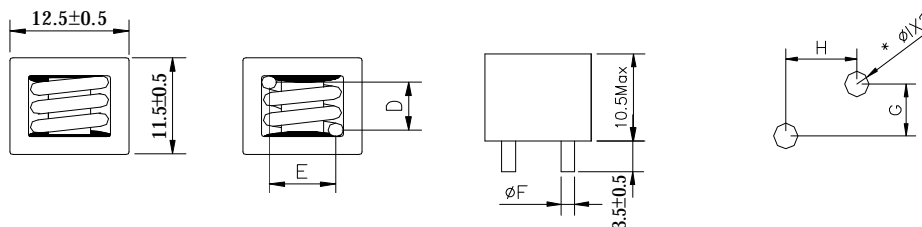
### PRODUCT IDENTIFICATION

#### MSQ-1310-R47 M

① ② ③ ④

- ① Product Code
- ② Dimensions Code
- ③ Inductance Code
- ④ Tolerance Code

### DIMENSIONS and RECOMMENDED PC BOARD PATTERN



MSQ-1310	D(mm)	E(mm)	F(mm)	G(mm)	H(mm)	φl(mm)
-R47M	6.2 ±0.5	7.4 ±0.5	1.5 ±0.1	6.2	7.4	1.75
-R60M	6.2 ±0.5	7.4 ±0.5	1.5 ±0.1	6.2	7.4	1.75
-R80M	6.2 ±0.5	7.4 ±0.5	1.5 ±0.1	6.2	7.4	1.75
-1R2M	6.6 ±0.5	7.7 ±0.5	1.3 ±0.1	6.6	7.7	1.55
-1R5M	6.6 ±0.5	7.7 ±0.5	1.3 ±0.1	6.6	7.7	1.55

### ELECTRICAL CHARACTERISTICS

Part No.	Inductance (μH)	Inductance tolerance(%)	Test Frequency (kHz)	DC resistance (mΩ)	Rated current*	
					Idc1(A) Max.	Idc2(A) Typ.
MSQ-1310-R47M	0.47	±20	100	0.56±6%	40.0	40.0
MSQ-1310-R60M	0.60	±20	100	0.56±6%	40.0	40.0
MSQ-1310-R80M	0.80	±20	100	1.0±6%	40.0	40.0
MSQ-1310-1R2M	1.2	±20	100	1.55±6%	35.0	28.0
MSQ-1310-1R5M	1.5	±20	100	1.55±6%	31.0	28.0

\* Rated current: Idc1: DC current flows and the nominal value of inductance has fallen by 30%

Idc2 : Value obtained when current flows and the temperature has risen to 40°C Typ.

Operating temperature range: -40 to +105°C (Including self-temperature rise)



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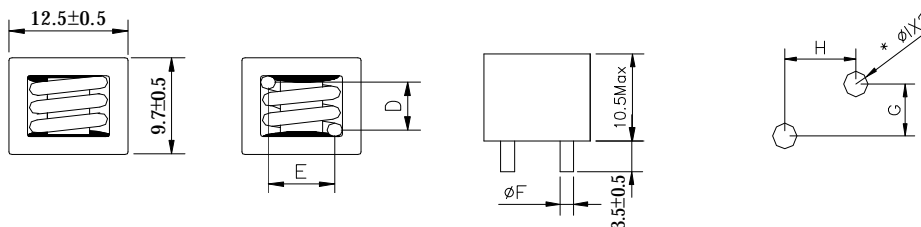
### PRODUCT IDENTIFICATION

#### MSQ-131010-R50 M

❶    ❷    ❸    ❹

- ❶ Product Code
- ❷ Dimensions Code
- ❸ Inductance Code
- ❹ Tolerance Code

### DIMENSIONS and RECOMMENDED PC BOARD PATTERN



MSQ-13101	D(mm)	E(mm)	F(mm)	G(mm)	H(mm)	φl(mm)
-R50M	4.85 ±0.5	7.8 ±0.5	1.3 ±0.1	4.9	7.8	1.55
-1R2M	4.85 ±0.5	7.8 ±0.5	1.3 ±0.1	4.9	7.8	1.55

### ELECTRICAL CHARACTERISTICS

Part No.	Inductance (μH)	Inductance tolerance(%)	Test Frequency (kHz)	DC resistance (mΩ)	Rated current*	
					Idc1(A) Max.	Idc2(A) Typ.
MSQ-131010-R50M	0.50	±20	100	0.95±6%	40.0	40.0
MSQ-131010-1R2M	1.20	±20	100	1.24±6%	28.0	28.0

- \* Rated current: Idc1: DC current flows and the nominal value of inductance has fallen by 30%  
Idc2 : Value obtained when current flows and the temperature has risen to 40°C Typ.  
Operating temperature range: -40 to +105°C (Including self-temperature rise)