

**MINIATURE SQUARE SHIELDED
SMD POWER INDUCTORS
SERIES MSQ1040**

FEATURES

- 100 % ferrite shielded
- Very high current handling capacity
- Excellent solderability
- High heat resistance
- Low price

ELECTRICAL SPECIFICATIONS

- Inductance range 1.50 μ H to 330 μ H
- Test conditions 0.25 V_{rms} @ 100 kHz (1.5~7 μ H)
- Test conditions 0.25 V_{rms} @ 1 kHz (10~330 μ H)
- Rated current range 0.7 to 10.0 A_{DC}
- Tolerance $\pm 20\%$ (M) and $\pm 30\%$ (Y)
- Test equipment Quadtech 1910 L analyzer
- Rated current Refer to notes below

PHYSICAL SPECIFICATIONS

- Operating temp. -25°C to +105°C
- Construction surface mount
- shielding 100% ferrite
- Packaging T & R 1000 pieces per reel
- Tape & reel spec. 24 mm embossed carrier
330 mm reel

DIMENSIONS IN MILLIMETERS

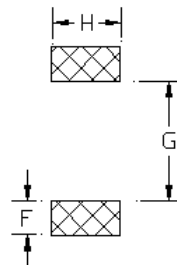
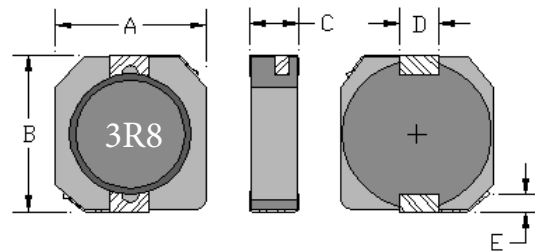
- Width A 10.3 max
- Length B 10.5 max
- Height C 4.0 max
- Terminal width D 3.0 ref
- Terminal length E 1.5 ref

SUGGESTED LAND PATTERN

- F = 1.6 mm ref.
- G = 7.3 mm ref.
- H = 3.2 mm ref.

SPECIFICATIONS

Part Number	L (μ H)	Tol % $\pm$	DCR max ($m\Omega$)	Rated Current $I_{sat}^{(1)}$ (A)
MSQ1040-1R5	1.50	Y	8.1	10.0
MSQ1040-2R5	2.50	Y	10.5	7.50
MSQ1040-3R8	3.80	Y	13.0	6.00
MSQ1040-5R2	5.20	Y	22.0	5.50
MSQ1040-7R0	7.00	Y	27.0	4.80
MSQ1040-100	10.0	M,Y	35.0	4.40
MSQ1040-150	15.0	M,Y	50.0	3.60
MSQ1040-220	22.0	M,Y	73.0	2.90
MSQ1040-330	33.0	M,Y	93.0	2.30
MSQ1040-470	47.0	M,Y	128.0	2.10
MSQ1040-680	68.0	M,Y	213.0	1.50
MSQ1040-101	100.0	M,Y	304.0	1.35
MSQ1040-151	150.0	M,Y	506.0	1.15
MSQ1040-221	220.0	M,Y	756.0	0.92
MSQ1040-331	330.0	M,Y	1090	0.70



Notes:

(1) Saturation current is based on L drop 30% typical.

(2) All test data based on 25°C ambient. Part temperature (ambient + temp rise) must not exceed 105°C under worst case operating conditions. Circuit design, components, PCB trace size, airflow and other cooling provisions all effect the part temperature.