

# 501 series

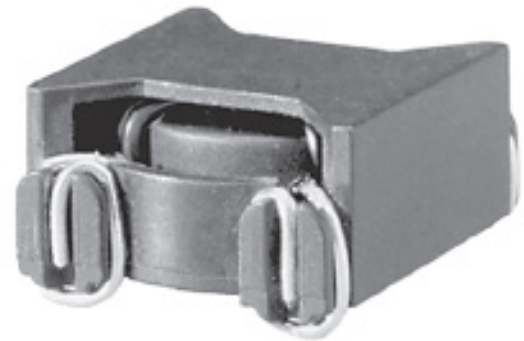
## common mode chokes

### PRODUCT DESCRIPTION

West Coast Magnetics' 501 series common mode chokes are designed to attenuate common mode line noise in switching power supplies. These chokes provide a typical minimum 15 dB of attenuation from 100 kHz to 30 MHz. They are offered in two package styles. A low profile surface mount package is compatible with pick and place equipment. A larger through-hole package offers greater attenuation and is also compatible with pick and place equipment.

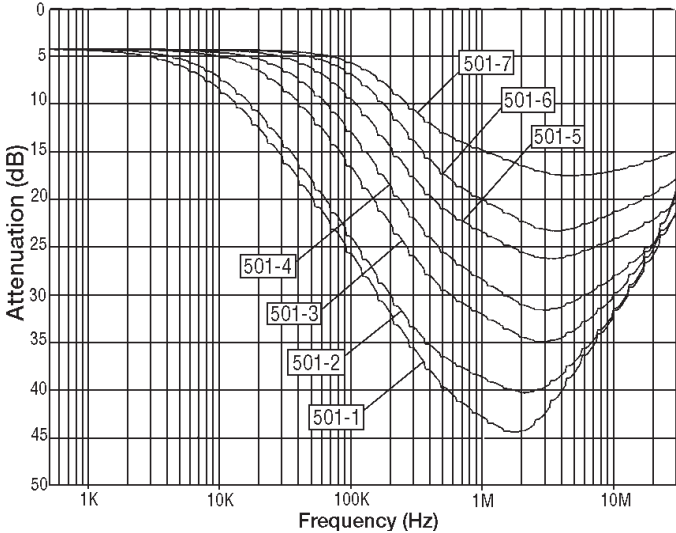
### FEATURES & BENEFITS

Low profile, surface mount option – Minimum 3mm clearance between windings – High attenuation in a small package – DC currents up to 11 amps – Application specific designs available on request

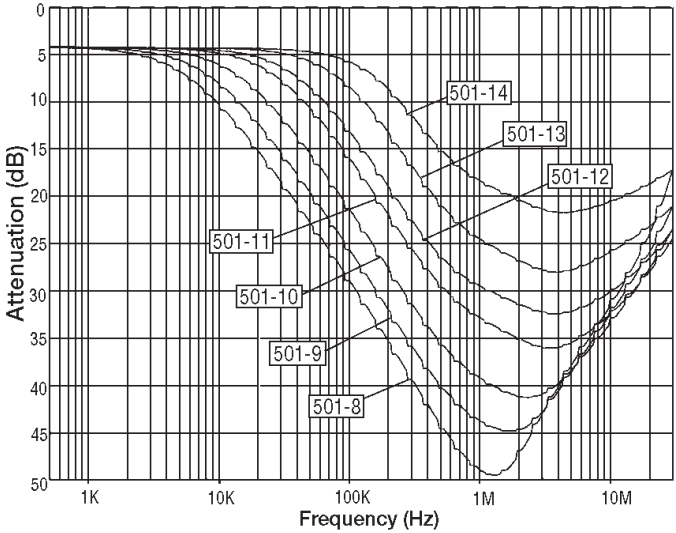


Product Code	Minimum Inductance ( $\mu$ H)	Rated DC Current (amps) 40°C Temp Rise	Rated DC Current (amps) 25°C Temp Rise	Maximum Leakage Inductance ( $\mu$ H)	Maximum DCR (mOhms)	Interwinding Hypot (Vac)	Mount Style
501-01	1980	0.8	0.6	42.5	347	1500	Surface Mount
501-02	1267	1.0	0.8	27.8	180	1500	Surface Mount
501-03	636	1.4	1.1	14.3	82	1500	Surface Mount
501-04	431	2.0	1.5	10.2	43	1500	Surface Mount
501-05	220	2.8	2.2	5.7	20	1500	Surface Mount
501-06	141	4.0	3.1	3.9	10	1500	Surface Mount
501-07	79	5.7	4.4	2.6	5	1500	Surface Mount
501-08	2812	1.4	1.1	48.0	204	1500	Through Hole
501-09	2013	2.0	1.5	31.5	105	1500	Through Hole
501-10	1065	2.8	2.2	17.3	54	1500	Through Hole
501-11	599	4.0	3.1	12.0	25	1500	Through Hole
501-12	416	5.7	4.4	7.1	13	1500	Through Hole
501-13	204	8.1	6.3	4.1	6	1500	Through Hole
501-14	104	11.2	8.9	2.9	2	1500	Through Hole

COMMON MODE ATTENUATION - Surface Mount Style



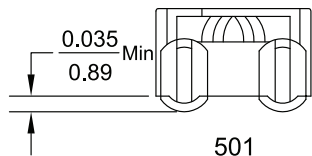
COMMON MODE ATTENUATION - Through Hole Style



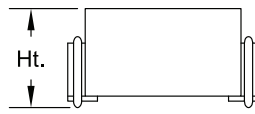
Note:  
Attenuation measured in 50 Ohm circuit on HP3577A Network Analyzer

Dimensions:  $\frac{\text{inches}}{\text{mm}}$

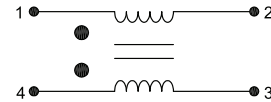
### SURFACE MOUNT OPTION



501  
Side View

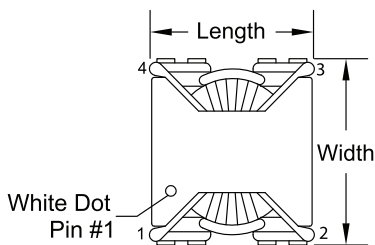


501  
Side View

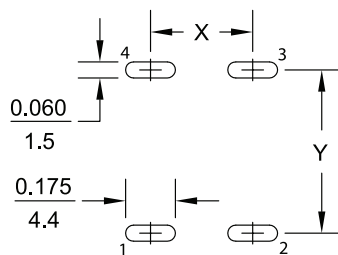


Moulding: Ryton R4  
Rating: UL 94-VO  
SMD Pads: Sn96.5/Cu3.0/Ag0.5

Dimensional Tolerance Length, Width =  $\pm 0.010/0.25$   
Height Dimension = Maximum  
Recommended Tolerance X, Y =  $\pm 0.005/0.13$



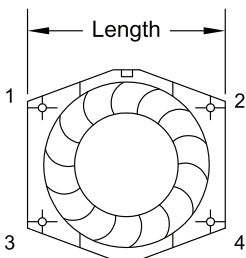
501  
Top View



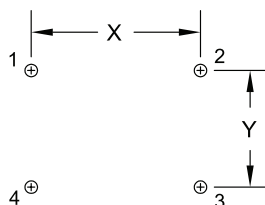
501  
Suggested PCB Layout

Length	Width	Height	X	Y
<u>0.650</u>	<u>0.750</u>	<u>0.400</u>	<u>0.445</u>	<u>0.660</u>
16.5	19.1	10.2	11.3	16.8

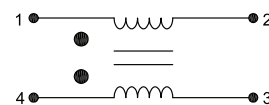
### THROUGH HOLE OPTION



501  
Bottom View

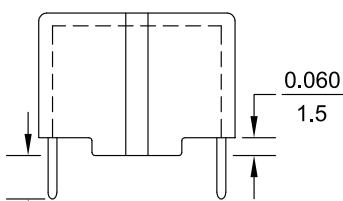


501  
Suggested PCB Layout

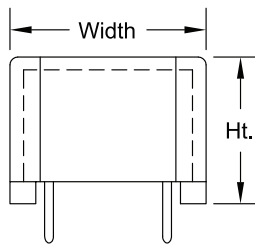


Moulding: Ryton R4  
Rating: UL 94-VO  
SMD Pads: Sn96.5/Cu3.0/Ag0.5

Dimensional Tolerance Length, Width =  $\pm 0.010/0.25$   
Height Dimension = Maximum  
Pin Diameter = 0.026" x 0.026"  
Pin Length = 0.145/3.7  $\pm 0.020/0.5$



501  
Side View



501  
Side View

Length	Width	Height	X	Y
<u>0.880</u>	<u>0.890</u>	<u>0.570</u>	<u>0.787</u>	<u>0.492</u>
22.4	22.6	14.5	20.0	12.5

Note: All materials of construction minimum Class B 130° C rated.