501 series

common mode chokes

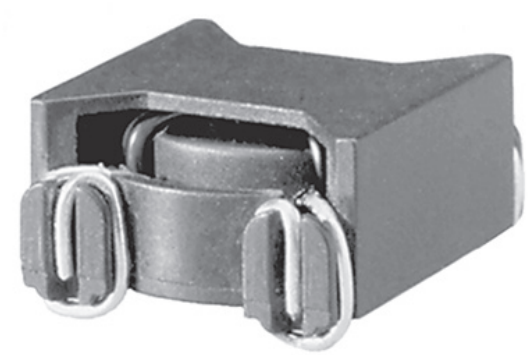
PRODUCT DESCRIPTION

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

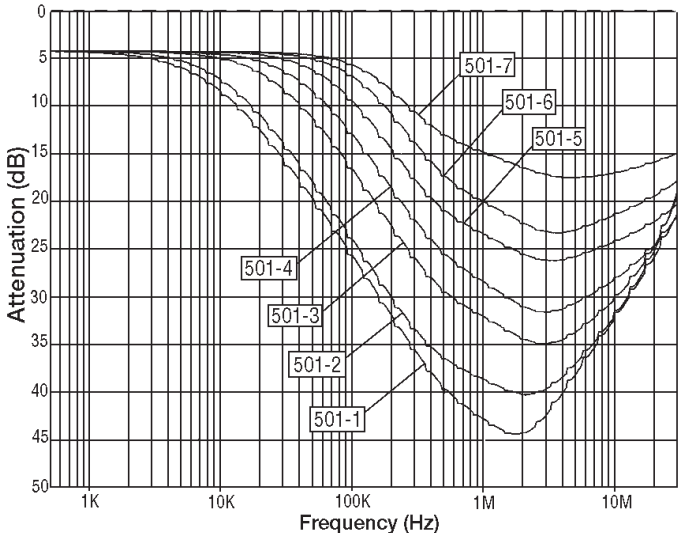
Low profile, surface mount option – Minimum 3mm clearance between windings – High attenuation in a small package – DC currents up to 11 amps – Application specific designs available on request

RoHS compliant

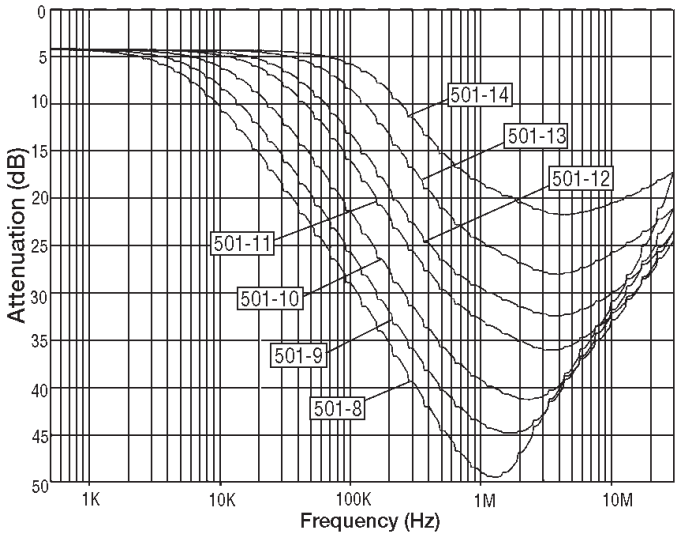


Product Code	*Minimum Inductance (µH)*	*Rated DC Current (amps) 40ºC Temp Rise*	*Rated DC Current (amps) 25ºC Temp Rise*	*Maximum Leakage Inductance (µH)*	*Maximum DCR (mOhms)*	*Interwinding Hypot (Vac)*	*Mount Style*
501-01	1980	0.8	0.6	42.5	347	1500	Surface Mount
501-02	1267	1.0	0.8	27.8	180	1500	Surface 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



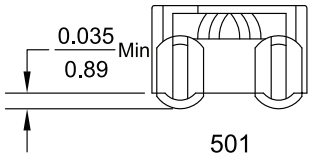
COMMON MODE ATTENUATION - Through Hole Style



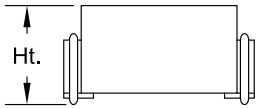
Note:
Attenuation measured in 50 Ohm circuit on HP3577A Network Analyzer

Dimensions: inches / mm

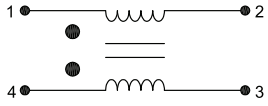
SURFACE MOUNT OPTION



501
Side View

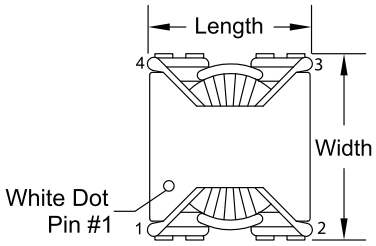


501
Side View

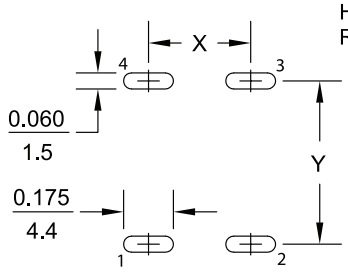


Moulding: Ryton R4
Rating: UL 94-VO
SMD Pads: Sn96.5/Cu3.0/Ag0.5

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



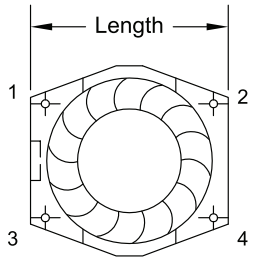
501
Top View



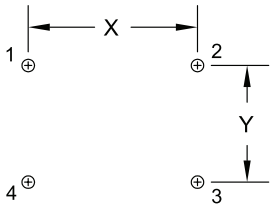
501
Suggested PCB Layout

Length	Width	Height	X	Y
0.650 16.5	0.750 19.1	0.400 10.2	0.445 11.3	0 .660 16.8

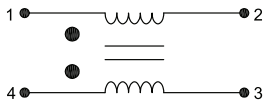
THROUGH HOLE OPTION



501
Bottom View

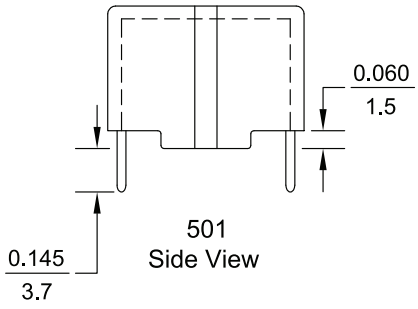


501
Suggested PCB Layout

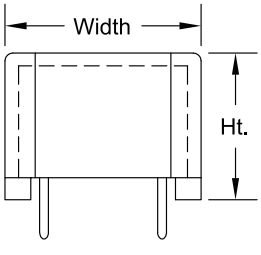


Moulding: Ryton R4
Rating: UL 94-VO
SMD Pads: Sn96.5/Cu3.0/Ag0.5

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



501
Side View



501
Side View

Length	Width	Height	X	Y
0.880 22.4	0.890 22.6	0.570 14.5	0.787 20.0	0.492 12.5

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