

WCM501 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 and 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

Engineering Data

Product Code	Minimum Inductance (µH)	Rated DC Current (amps) 40°C Temp Rise	Rated DC Current (amps) 25°C Temp Rise	Maximum Leakage Inductance (µH)	Maximum DCR (mOhms)	Interwinding Hypot (Vac)	Mount Style
WCM501-01	1980	0.8	0.6	42.5	347	1500	Surface Mount
WCM501-02	1267	1.0	0.8	27.8	180	1500	Surface Mount
WCM501-03	636	1.4	1.1	14.3	82	1500	Surface Mount
WCM501-04	431	2.0	1.5	10.2	43	1500	Surface Mount
WCM501-05	220	2.8	2.2	5.7	20	1500	Surface Mount
WCM501-06	141	4.0	3.1	3.9	10	1500	Surface Mount
WCM501-07	79	5.7	4.4	2.6	5	1500	Surface Mount
WCM501-08	2812	1.4	1.1	48.0	204	1500	Through Hole
WCM501-09	2013	2.0	1.5	31.5	105	1500	Through Hole
WCM501-10	1065	2.8	2.2	17.3	54	1500	Through Hole









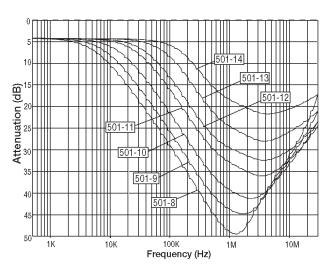


Engineering Data Continued

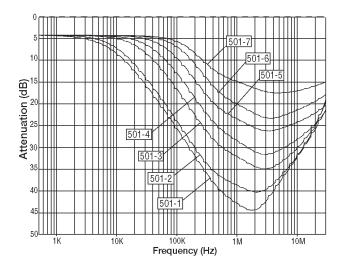
Product Code	Minimum Inductance (μΗ)	Rated DC Current (amps) 40°C Temp Rise	Rated DC Current (amps) 25°C Temp Rise	Maximum Leakage Inductance (µH)	Maximum DCR (mOhms)	Interwinding Hypot (Vac)	Mount Style
WCM501-11	599	4.0	3.1	12.0	25	1500	Through Hole
WCM501-12	416	5.7	4.4	7.1	13	1500	Through Hole
WCM501-13	204	8.1	6.3	4.1	6	1500	Through Hole
WCM501-14	104	11.2	8.9	2.9	2	1500	Through Hole

Graphs WCM501 Series

Common Mode Attenuation - Surface Mount Style



Common Mode Attenuation - Through Hole Style



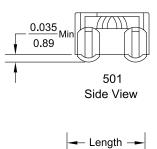
Note:

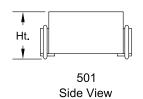
Attenuation measured in 50 Ohm circuit on HP3577A Network Analyzer

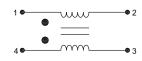


Schematics WCM501 Series

SURFACE MOUNT OPTION







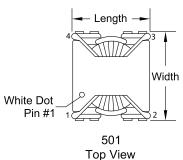
Moulding: Ryton R4
Rating: UL 94-VO

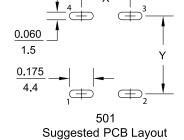
SMD Pads: Sn96.5/Cu3.0/Ag0.5

Dimensional Tolerance Length, Width = ±0.010/0.25

Height Dimension = Maximum

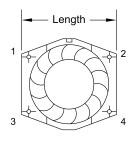
Recommended Tolerance $X,Y = \pm 0.005/0.13$



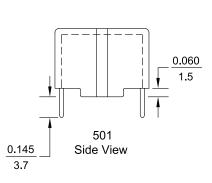


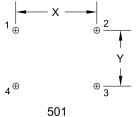
Length	Width	Height	X	Υ
<u>0.650</u>	<u>0.750</u>	<u>0.400</u>	<u>0.445</u>	<u>0.660</u>
16.5	19.1	10.2	11.3	16.8

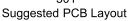
THROUGH HOLE OPTION

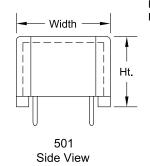


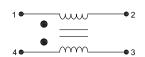
501 Bottom View











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 = $0.145/3.7\pm0.020/0.5$

Length	Width	Height	х	Υ
0880	<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

Dimensions: Note:

Inches Please specify vertical or horizontal mount with your order.

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

