

WCM305 Series

Power Inductors

Product Description

West Coast Magnetics' WCM305 series power inductors are designed to handle high levels of current and are designed for 200°C operation. Using high temperature materials, these power inductors can withstand the full rated RMS current on a continuous basis. The toroidal design places this component in a very cost competitive position and features low EMI as well.

Features and Benefits

Low EMI – High current rating – Low cost – Suitable for high temperature use.



Engineering Data

Product Code	Inductance (μH) min no Load	Max Current, (amps) RMS	Current, Idc 15% L drop	Current, Idc 30% L drop	Current, Idc 50% L drop	Current, Idc 60% L drop	DCR (mOhms)
WCM305-01	15.5	8	2.6	4.7	8.9	12.3	41
WCM305-02	65.7	8	2.5	4.5	8.5	11.7	97
WCM305-03	9.2	11	3.4	6.1	11.5	16.0	20
WCM305-04	46.1	11	3.0	5.3	10.1	14.0	50
WCM305-05	118.5	11	2.7	4.8	9.2	12.7	97
WCM305-06	342.5	11	2.6	4.6	8.8	12.2	169
WCM305-07	5.2	14	4.5	8.1	15.4	21.3	11
WCM305-08	27.9	14	3.8	6.9	13.0	18.0	25
WCM305-09	69.9	14	3.5	6.3	11.9	16.6	48
WCM305-10	207.2	14	3.3	6.0	11.3	15.7	86
WCM305-11	571.7	14	3.9	6.9	13.0	18.1	167
WCM305-12	2.3	20	6.8	12.2	23.0	32.0	5
WCM305-13	15.7	20	5.1	9.1	17.3	24.0	12

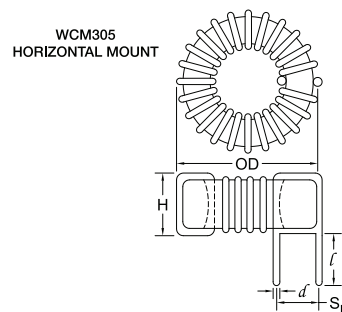
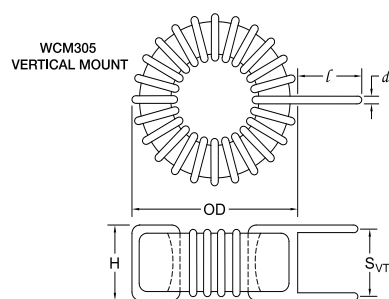


Engineering Data Continued

Product Code	Inductance (μH) min no Load	Max Current, (amps) RMS	Current, Idc 15% L drop	Current, Idc 30% L drop	Current, Idc 50% L drop	Current, Idc 60% L drop	DCR (mOhms)
WCM305-14	46.3	20	4.3	7.7	14.7	20.4	25
WCM305-15	135.8	20	4.1	7.4	14.0	19.4	43
WCM305-16	401.3	20	4.6	8.2	15.5	21.6	82
WCM305-17	1.1	26	9.7	17.4	32.9	45.7	3
WCM305-18	8.0	26	7.2	12.8	24.2	33.7	6
WCM305-19	25.6	26	5.8	10.4	19.7	27.4	13
WCM305-20	83.5	26	5.3	9.4	17.8	24.7	22
WCM305-21	240.5	26	5.9	10.6	20.1	27.9	42
WCM305-22	0.6	39	13.6	24.3	46.1	64.0	2
WCM305-23	4.3	39	9.8	17.4	33.1	45.9	3
WCM305-24	16.7	39	7.2	12.9	24.4	33.9	6
WCM305-25	50.2	39	6.8	12.1	23.0	31.9	11
WCM305-26	150.8	39	7.5	13.4	25.3	35.2	21
WCM305-27	2.3	50	13.5	24.0	45.4	63.1	2
WCM305-28	8.5	50	10.1	18.1	34.2	47.5	3
WCM305-29	27.6	50	9.2	16.3	30.9	43.0	5
WCM305-30	81.8	50	10.2	18.1	34.4	47.7	10

Schematics WCM305 Series

Power Inductors



Dimensions:

Inches
mm

Note:

Please specify vertical or horizontal mount with your order.

Schematics WCM305 Series Continued

Product Code	Nom OD	Nom H	S _H	d	ℓ	S _{VT}
WCM305-01	<u>0.500</u> 1.27	<u>0.215</u> 0.546	<u>0.149</u> 0.378	<u>0.023</u> 0.058	<u>0.200</u> 0.51	<u>0.192</u> 0.488
WCM305-02	<u>0.757</u> 1.92	<u>0.316</u> 0.803	<u>0.203</u> 0.516	<u>0.023</u> 0.058	<u>0.250</u> 0.64	<u>0.293</u> 0.745
WCM305-03	<u>0.525</u> 1.33	<u>0.240</u> 0.610	<u>0.154</u> 0.391	<u>0.028</u> 0.071	<u>0.200</u> 0.51	<u>0.212</u> 0.539
WCM305-04	<u>0.763</u> 1.94	<u>0.329</u> 0.836	<u>0.208</u> 0.528	<u>0.028</u> 0.071	<u>0.250</u> 0.64	<u>0.301</u> 0.765
WCM305-05	<u>1.03</u> 2.62	<u>0.379</u> 0.963	<u>0.239</u> 0.607	<u>0.028</u> 0.071	<u>0.300</u> 0.76	<u>0.351</u> 0.892
WCM305-06	<u>1.40</u> 3.56	<u>0.525</u> 1.33	<u>0.313</u> 0.795	<u>0.028</u> 0.071	<u>0.375</u> 0.95	<u>0.496</u> 1.260
WCM305-07	<u>0.538</u> 1.37	<u>0.250</u> 0.64	<u>0.161</u> 0.409	<u>0.035</u> 0.089	<u>0.200</u> 0.51	<u>0.215</u> 0.551
WCM305-08	<u>0.786</u> 2.00	<u>0.343</u> 0.87	<u>0.215</u> 0.546	<u>0.035</u> 0.089	<u>0.250</u> 0.64	<u>0.308</u> 0.781
WCM305-09	<u>1.05</u> 2.67	<u>0.400</u> 1.02	<u>0.246</u> 0.625	<u>0.035</u> 0.089	<u>0.300</u> 0.76	<u>0.365</u> 0.931
WCM305-10	<u>1.415</u> 3.59	<u>0.540</u> 1.37	<u>0.320</u> 0.813	<u>0.035</u> 0.089	<u>0.375</u> 0.95	<u>0.504</u> 1.28
WCM305-11	<u>1.975</u> 5.02	<u>0.820</u> 2.08	<u>0.500</u> 1.27	<u>0.035</u> 0.089	<u>0.500</u> 1.27	<u>0.783</u> 1.99
WCM305-12	<u>0.560</u> 1.42	<u>0.280</u> 0.71	<u>0.170</u> 0.43	<u>0.044</u> 0.112	<u>0.200</u> 0.51	<u>0.236</u> 0.598
WCM305-13	<u>0.800</u> 2.03	<u>0.358</u> 0.91	<u>0.224</u> 0.569	<u>0.044</u> 0.112	<u>0.250</u> 0.64	<u>0.314</u> 0.798
WCM305-14	<u>1.061</u> 2.69	<u>0.415</u> 1.05	<u>0.255</u> 0.648	<u>0.044</u> 0.112	<u>0.300</u> 0.76	<u>0.371</u> 0.938
WCM305-15	<u>1.435</u> 3.64	<u>0.555</u> 1.41	<u>0.329</u> 0.835	<u>0.044</u> 0.112	<u>0.375</u> 0.95	<u>0.512</u> 1.30

Product Code	Nom OD	Nom H	S _H	d	ℓ	S _{VT}
WCM305-16	<u>1.995</u> 5.07	<u>0.835</u> 2.12	<u>0.509</u> 1.29	<u>0.044</u> 0.112	<u>0.500</u> 1.27	<u>0.791</u> 2.01
WCM305-17	<u>0.580</u> 1.47	<u>0.302</u> 0.767	<u>0.181</u> 0.460	<u>0.055</u> 0.140	<u>0.200</u> 0.51	<u>0.247</u> 0.627
WCM305-18	<u>0.865</u> 2.20	<u>0.402</u> 1.02	<u>0.235</u> 0.597	<u>0.055</u> 0.140	<u>0.250</u> 0.64	<u>0.347</u> 0.880
WCM305-19	<u>1.115</u> 2.83	<u>0.458</u> 1.16	<u>0.266</u> 0.676	<u>0.055</u> 0.140	<u>0.300</u> 0.76	<u>0.403</u> 1.020
WCM305-20	<u>1.460</u> 3.71	<u>0.574</u> 1.46	<u>0.340</u> 0.864	<u>0.055</u> 0.140	<u>0.375</u> 0.95	<u>0.519</u> 1.32
WCM305-21	<u>2.025</u> 5.14	<u>0.854</u> 2.17	<u>0.520</u> 1.32	<u>0.055</u> 0.140	<u>0.500</u> 1.27	<u>0.799</u> 2.03
WCM305-22	<u>0.627</u> 1.59	<u>0.338</u> 0.858	<u>0.194</u> 0.493	<u>0.068</u> 0.173	<u>0.200</u> 0.51	<u>0.270</u> 0.685
WCM305-23	<u>0.910</u> 2.31	<u>0.440</u> 1.12	<u>0.248</u> 0.630	<u>0.068</u> 0.173	<u>0.250</u> 0.64	<u>0.372</u> 0.947
WCM305-24	<u>1.130</u> 2.87	<u>0.471</u> 1.20	<u>0.279</u> 0.709	<u>0.068</u> 0.173	<u>0.300</u> 0.76	<u>0.403</u> 1.03
WCM305-25	<u>1.480</u> 3.76	<u>0.605</u> 1.54	<u>0.353</u> 0.897	<u>0.068</u> 0.173	<u>0.375</u> 0.95	<u>0.537</u> 1.37
WCM305-26	<u>2.040</u> 5.18	<u>0.890</u> 2.26	<u>0.533</u> 1.35	<u>0.068</u> 0.173	<u>0.500</u> 1.27	<u>0.822</u> 2.09
WCM305-27	<u>0.967</u> 2.46	<u>0.476</u> 1.21	<u>0.266</u> 0.676	<u>0.086</u> 0.218	<u>0.250</u> 0.64	<u>0.390</u> 0.992
WCM305-28	<u>1.247</u> 3.17	<u>0.517</u> 1.31	<u>0.297</u> 0.754	<u>0.086</u> 0.218	<u>0.300</u> 0.76	<u>0.431</u> 1.09
WCM305-29	<u>1.572</u> 3.99	<u>0.661</u> 1.68	<u>0.371</u> 0.942	<u>0.086</u> 0.218	<u>0.375</u> 0.95	<u>0.575</u> 1.46
WCM305-30	<u>2.152</u> 5.47	<u>0.958</u> 2.43	<u>0.551</u> 1.40	<u>0.086</u> 0.218	<u>0.500</u> 1.27	<u>0.872</u> 2.21