



CSMS0510D Series SMD WIRE WOUND POWER INDUCTORS (SHIELDED)

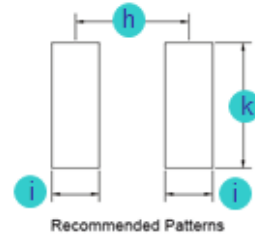
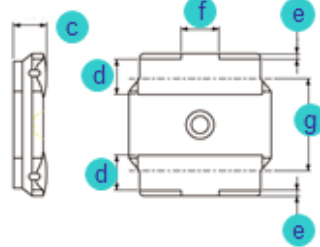
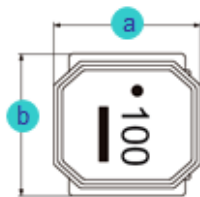
Rev. A

A. Electrical Specifications:

P/N	Marking	Inductance @100KHz (μ H)	Inductance Tolerance	DCR $\pm 20\%$ (Ω)	Rated Current (mA)		SRF Min. (MHz)
					I sat	I rms	
CSMS0510D-1R0N	1R0	1.0	$\pm 30\%$	0.070	2350	1750	95
CSMS0510D-2R2N	2R2	2.2	$\pm 30\%$	0.105	1500	1400	65
CSMS0510D-3R3M	3R3	3.3	$\pm 20\%$	0.125	1400	1250	42
CSMS0510D-4R7M	4R7	4.7	$\pm 20\%$	0.145	1200	1150	37
CSMS0510D-6R8M	6R8	6.8	$\pm 20\%$	0.185	1000	1000	33
CSMS0510D-100M	100	10	$\pm 20\%$	0.250	850	900	23
CSMS0510D-150M	150	15	$\pm 20\%$	0.400	680	650	19
CSMS0510D-220M	220	22	$\pm 20\%$	0.600	550	450	15

B. Dimensions: mm (Inch)

Series	a	b	c	d	e	f	g	h	i	k
CSMS0510D	4.9 (0.193)	4.9 (0.193)	1.0 (0.039)	1.2 (0.047)	0.2 (0.008)	1.3 (0.051)	3.3 (0.130)	3.6 (0.142)	1.5 (0.059)	4.0 (0.157)
Tol.	± 0.2 (0.008)	± 0.2 (0.008)	Max.	± 0.2 (0.008)	Typ.	Typ.	± 0.2 (0.008)	Typ.	Typ.	Typ.



Recommended Patterns

C. General Information:

- CSMS0510D-xxx_, "CSMS0510D" = P/N, "xxx" = Inductance, "_" = Tolerance.
- Tolerance "_": M: $\pm 20\%$, N: $\pm 30\%$
- Magnetically shielded
- High saturation current
- Storage temperature: -40°C to $+85^{\circ}\text{C}$.
- Operating temperature range: -25°C to $+125^{\circ}\text{C}$ (Including self-heating).
- Inductance measured using the HP4285A and Chroma1320 & 3302.
- DCR measured using Chroma 16502.
- SRF measured using the HP4291B.
- Saturation Current Idc1: The value of current causes a 30% Inductance reduction from initial value. (at : 20°C ambient)
- Temperature rise current Idc2: The value of current causes a 40°C temperature rise. (at : 20°C ambient)
- Rated Current: Either Idc1 or Idc2 whichever is smaller.
- MSL: Level 1.
- Inductance and Current range: From $1.0 \mu\text{H}$ (1750mA) to $22.0 \mu\text{H}$ (450mA).

D. Applications:

- Game Consoles
- Set Top Boxes
- Cables Modems
- Computers
- Mobile Communication Devices (Cell Phones, Radios, etc.)
- PDA, LCD, DVD, BRP, HD.

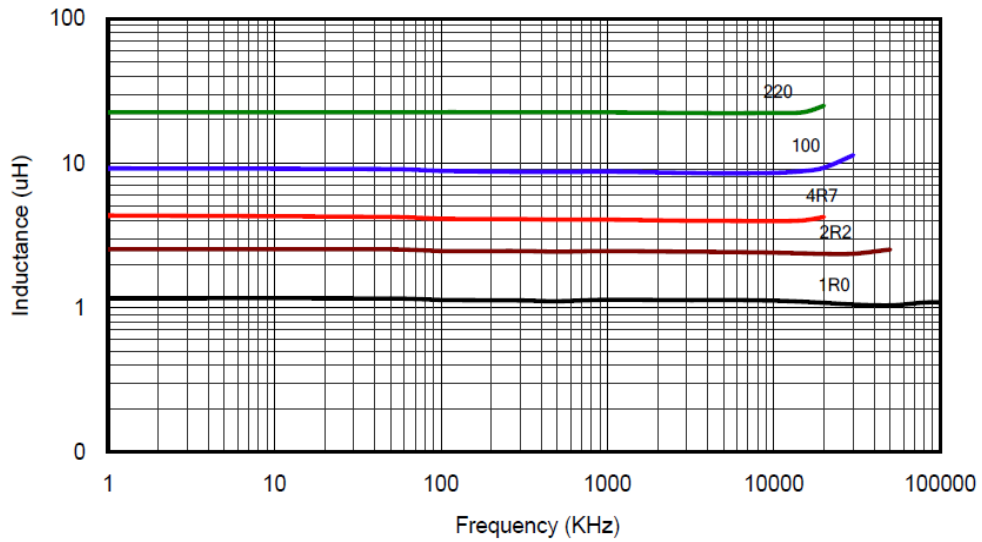


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E. Characteristics Curve:

Inductance vs. Frequency



Inductance vs. DC Current

