MCS1040 Series – SMD MOLDED HIGH CURRENT POWER INDUCTORS (SHIELDED)

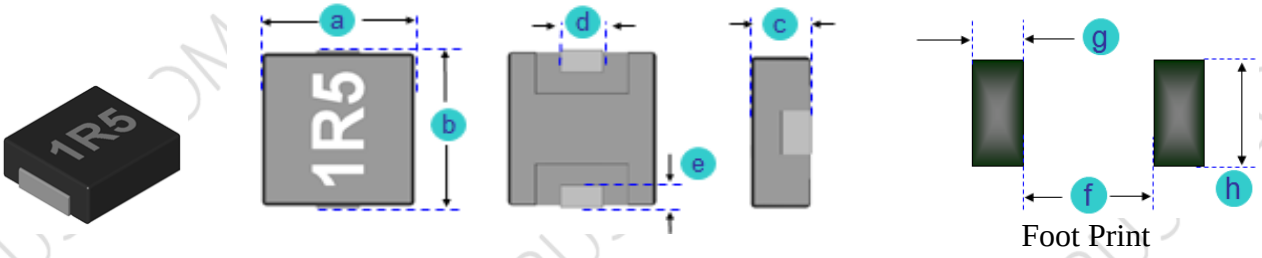
Rev. A

A. Electrical Specifications:

P/N	L (uH)	Tol.	Mark	Test Freq. (KHz)	DCR Typ. (mΩ)	DCR Max. (mΩ)	I sat. Typ. (A)	I rated Typ. (A)
MCS1040-R36MN1	0.36	M	R36	100	1.10	1.20	40.0	34.0
MCS1040-R47MN1	0.47	M	R47	100	1.30	1.55	35.0	25.0
MCS1040-R56MN1	0.56	M	R56	100	1.60	1.80	32.0	25.0
MCS1040-R68MN1	0.68	M	R68	100	2.40	2.70	30.0	22.0
MCS1040-R88MN1	0.88	M	R88	100	2.70	3.00	30.0	20.0
MCS1040-1R0MN1	1.00	M	1R0	100	3.00	3.30	28.0	18.0
MCS1040-1R5MN1	1.50	M	1R5	100	3.80	4.20	21.0	16.0

B. Dimensions: mm (Inch)

Series	a	b	c	d	e	f	g	h
MCS1040	10 (0.394)	11.15 (0.439)	4.0 (0.157)	3.0 (0.118)	2.0 (0.079)	5.4 (0.213)	4.05 (0.159)	4.4 (0.173)
Tol.	±0.3 (0.012)	±0.35 (0.014)	Max.	±0.5 (0.020)	±.5 (0.020)	Typ.	Typ.	Typ.



Foot Print

C. General Information:

1. MCS1040-xxx_N1, “MCS1040” = P/N, “xxx” = Inductance, “_” = Tolerance: M: ± 20%, “N1” = Internal control code.
2. Tolerance “_”: M: ± 20%, N: ± 30%
3. Magnetically shielded
4. High saturation current
5. Test Freq.: 100KHz, 0.5V
6. Operating temperature: -55°C to +125ºC
7. All test data is referenced to 25ºC ambient.
8. Rated current (A) that will cause an approximate ΔT of 40ºC.
9. I sat (A) that will cause Lo to drop approximately 20%.
10. The part temperature (ambient + self temp. rise) should not exceed 125ºC under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature which should be verified in the end applications.
11. Test Instrument: Chroma16502, Chroma11300.
12. Inductance and Current Range: From 0.36 uH (34 A) to 1.5 uH (16 A)
13. Unspecified values available on request.
14. MSL: Level 1.

D. Applications:

1. Game Consoles
2. Set Top Boxes
3. Cables Modems
4. Computers
5. Mobile Communication Devices (Cell Phones, Radios, etc.)
6. PDA, LCD, DVD, BRP, HD.

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E. Characteristics Curve: