Shielded Power Inductors

Shielded Power Inductors - SER2009/2010/2011/2012/2013/2014 Series



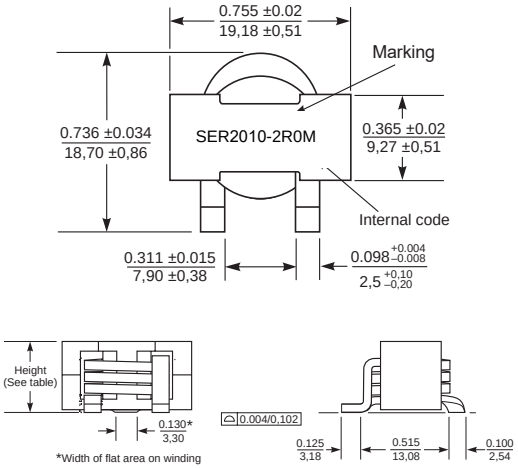
Features

- Flat-wire construction; low DCR
- Magnetically shielded ferrite core
- Saturation current up to 100 A
- Ambient: -40 to +85 deg C [4]

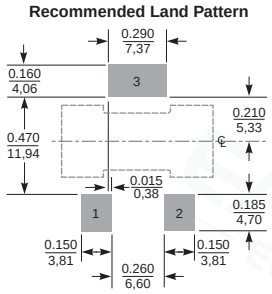
Applications

- High-current power supplies
- Point-of-load (POL) converters
- Voltage regulator modules (VRM)
- Voltage regulator-down (VRD)

OUTLINE DIMENSIONS



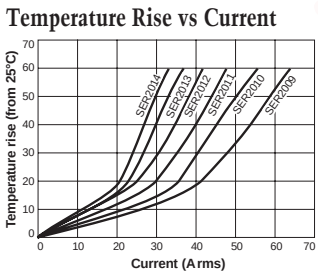
RECOMMENDED LAND PATTERN



HEIGHT & WEIGHT

Series	Height max. (mm)	Weight (g)
SER2009	8.64	6.65 - 6.89
SER2010	9.40	7.46 - 7.90
SER2011	10.67	8.63 - 9.08
SER2012	11.94	9.92 - 10.3
SER2013	12.95	10.8 - 11.4
SER2014	13.97	11.7 - 12.4

TEMPERATURE RISE vs CURRENT



Dimensions: inches / mm. Drawings not to scale.

ELECTRICAL CHARACTERISTICS @ 25℃

Part number	L [1] +/-20% (uH)	DCR typ. (mOhm)	DCR max. (mOhm)	SRF typ. (MHz)	Isat [2] (A)	Irms [3] 20 deg C (A)	Irms [3] 40 deg C (A)	Height (mm)
SER2009-R30M	0.30	0.630	0.740	550	100	41	54	8.64
SER2010-R30M	0.30	0.900	1.00	182	100	36	45	9.40
SER2009-R50M	0.50	0.630	0.740	544	60	41	54	8.64
SER2010-R50M	0.50	0.900	1.00	148	81	36	45	9.40
SER2011-R50M	0.50	1.20	1.34	161	100	30	40	10.67
SER2009-R60M	0.60	0.630	0.740	648	49	41	54	8.64
SER2010-R60M	0.60	0.900	1.00	115	70	36	45	9.40
SER2011-R60M	0.60	1.20	1.34	124	90	30	40	10.67
SER2012-R60M	0.60	1.44	1.60	115	97	25	35	11.94
SER2009-R68M	0.68	0.630	0.740	454	45	41	54	8.64
SER2010-R68M	0.68	0.900	1.00	136	62	36	45	9.40
SER2011-R68M	0.68	1.20	1.34	135	78	30	40	10.67
SER2012-R68M	0.68	1.44	1.60	103	85	25	35	11.94
SER2013-R68M	0.68	1.70	1.82	104	98	23	30	12.95
SER2009-R80M	0.80	0.630	0.740	567	38	41	54	8.64
SER2010-R80M	0.80	0.900	1.00	92	53	36	45	9.40
SER2011-R80M	0.80	1.20	1.34	113	70	30	40	10.67
SER2012-R80M	0.80	1.44	1.60	91	75	25	35	11.94
SER2013-R80M	0.80	1.70	1.82	93	85	23	30	12.95
SER2014-R80M	0.80	1.94	2.15	104	98	21	27	13.97
SER2009-R90M	0.90	0.630	0.740	557	33	41	54	8.64
SER2010-R90M	0.90	0.900	1.00	96	48	36	45	9.40
SER2011-R90M	0.90	1.20	1.34	104	62	30	40	10.67
SER2012-R90M	0.90	1.44	1.60	85	69	25	35	11.94
SER2013-R90M	0.90	1.70	1.82	98	73	23	30	12.95
SER2014-R90M	0.90	1.94	2.15	102	87	21	27	13.97
SER2009-1R0M	1.0	0.630	0.740	488	29	41	54	8.64
SER2010-1R0M	1.0	0.900	1.00	81	42	36	45	9.40
SER2011-1R0M	1.0	1.20	1.34	97	56	30	40	10.67
SER2012-1R0M	1.0	1.44	1.60	75	64	25	35	11.94
SER2013-1R0M	1.0	1.70	1.82	98	68	23	30	12.95
SER2014-1R0M	1.0	1.94	2.15	88	70	21	27	13.97
SER2009-1R2M	1.2	0.630	0.740	81	28	41	54	8.64
SER2010-1R2M	1.2	0.900	1.00	69	37	36	45	9.40
SER2011-1R2M	1.2	1.20	1.34	81	49	30	40	10.67
SER2012-1R2M	1.2	1.44	1.60	73	54	25	35	11.94
SER2013-1R2M	1.2	1.70	1.82	82	58	23	30	12.95
SER2014-1R2M	1.2	1.94	2.15	78	63	21	27	13.97
SER2009-2R0M	2.0	0.630	0.740	40	16	41	54	8.64
SER2010-2R0M	2.0	0.900	1.00	48	27	36	45	9.40
SER2011-2R0M	2.0	1.20	1.34	56	37	30	40	10.67
SER2012-2R0M	2.0	1.44	1.60	51	35	25	35	11.94
SER2013-2R0M	2.0	1.70	1.82	61	40	23	30	12.95
SER2014-2R0M	2.0	1.94	2.15	62	45	21	27	13.97
SER2013-3R6M	3.6	1.70	1.82	38	25	23	30	12.95
SER2013-4R0M	4.0	1.70	1.82	35	20	23	30	12.95
SER2014-4R0M	4.0	1.94	2.15	36	25	21	27	13.97
SER2013-4R7M	4.7	1.70	1.82	30	18	23	30	12.95

[1] L measured at 100 kHz, 0.1 Vrms, 0 Adc.

[2] Isat: 10% typical inductance drop, at 25 deg C.

[3] Irms: specified temperature rise from 25 deg C.

When Irms > Isat, the saturation limit is more critical.

[4] At 40 deg C rise Irms; max. part temperature 125 deg C.

Terminal 3 is for mounting stability only.

It is connected to the winding; do not connect it to ground or any circuitry.

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