

## Features

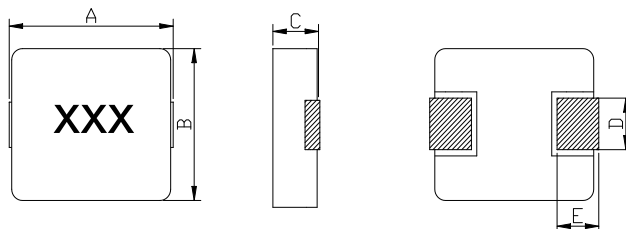
- Low profile and low DCR.
- Shielded construction.
- handles high transient current spikes without saturation
- frequency up to 3MHz
- Ultra Low buzz noise, due to composite construction
- 100% lead (Pb) free meet RoHS standard

## Applications

- PDA/Notebook/Desktop, and server applications.
- low profile,high current power supplies.
- Battery powered devices.
- DC/DC converters.



## Product Dimensions [unit: inch/ mm]



Product Dimensions					
P/N	ITEM				
	A	B	C	D	E
SMMS0420	4.60±0.30	4.2±0.20	2.0 Max	1.50 Typ	0.80 Typ
SMMS0520	5.50±0.40	5.20±0.20	2.0 Max	2.30 Typ	1.20 Typ
SMMS0530	5.5±0.40	5.20±0.20	3.0 Max	2.30 Typ	1.20 Typ
SMMS0624	7.10±0.30	6.60±0.20	2.40 Max	3.0 Typ	1.60 Typ
SMMS0630	7.10±0.30	6.60±0.20	3.0 Max	3.0 Typ	1.60 Typ
SMMS0650	7.10±0.30	6.60±0.20	5.0 Max	3.0 Typ	1.60 Typ
SMMS1040	11.5 Max	10.0±0.30	4.0 Max	3.0 Typ	2.0 Typ
SMMS1050	11.5 Max	10.0±0.30	5.0 Max	3.0 Typ	2.0 Typ
SMMS1350	13.80±0.50	12.6±0.20	5.0 Max	3.7 Typ	2.5 Typ
SMMS1360	13.80±0.50	12.6±0.20	6.0 Max	3.7 Typ	2.5 Typ

- All test data is referenced to 25°C ambient
- DC current (I<sub>rms</sub>) that will cause an approximate  $\Delta T$  of 40°C
- DC current (I<sub>sat</sub>) that will cause L<sub>o</sub> to drop approximately 30%
- Operating temperature Range: -55°C to +125°C
- Absolute maximum voltage 30VDC
- Operating temperature range -55°C ~ 125°C (Including self - temperature rise)

Electrical characteristics for SMMS0420 series					
P/N	100KHz 1.0V	D.C.R (mΩ)		Saturation Current	Heat Rating Current
	L0(μH) ±20% '@0A	Typical	Max	I sat (Amp) Typical	I rms (Amp) Typical
SMMS0420-R10M	0.10	3.00	3.50	25.00	13.00
SMMS0420-R22M	0.22	5.50	6.00	13.00	9.50
SMMS0420-R47M	0.47	9.00	12.00	9.50	8.00
SMMS0420-R56M	0.56	14.00	16.00	9.00	7.00
SMMS0420-R68M	0.68	12.00	15.00	9.00	7.00
SMMS0420-1R0M	1.00	19.00	24.00	7.00	6.00
SMMS0420-1R2M	1.20	24.00	27.00	6.00	5.50
SMMS0420-1R5M	1.50	25.00	28.00	6.00	5.50
SMMS0420-2R2M	2.20	39.00	45.00	5.00	4.50
SMMS0420-3R3M	3.30	70.00	80.00	4.00	3.50
SMMS0420-4R7M	4.70	92.00	110.00	3.00	2.80
SMMS0420-6R8M	6.80	125.00	135.00	2.50	2.40
SMMS0420-100M	10.00	220.00	240.00	2.00	1.60

Electrical characteristics for SMMS0520 series					
P/N	100KHz 1.0V	D.C.R (mΩ)		Saturation Current	Heat Rating Current
	L0(μH) ±20% '@0A	Typical	Max	I sat (Amp) Typical	I rms (Amp) Typical
SMMS0520-R10M	0.10	2.70	2.90	25.00	21.00
SMMS0520-R22M	0.22	4.10	4.50	17.00	13.00
SMMS0520-R33M	0.33	5.50	5.90	13.00	7.50
SMMS0520-R47M	0.47	7.10	7.70	12.50	8.00
SMMS0520-1R0M	1.00	16.80	18.00	7.50	7.00
SMMS0520-1R5M	1.50	30.00	35.00	6.00	5.50
SMMS0520-2R2M	2.20	34.90	37.70	5.50	5.00
SMMS0520-3R3M	3.30	58.50	68.00	4.70	4.10
SMMS0520-4R7M	4.70	75.30	81.30	3.20	3.00
SMMS0520-5R6M	5.60	85.20	92.00	3.00	2.20
SMMS0520-6R8M	6.80	114.00	121.00	2.80	2.10
SMMS0520-100M	10.00	200.00	220.00	2.20	2.00

**Electrical characteristics for SMMS0530 series**

P/N	100KHz 1.0V	D.C.R (mΩ)		Saturation Current	Heat Rating Current
	L0(μH) ±20% '@0A	Typical	Max	I sat (Amp) Typical	I rms (Amp) Typical
SMMS0530-R20M	0.20	3.50	3.90	15.00	14.00
SMMS0530-R47M	0.47	7.40	8.50	14.00	11.00
SMMS0530-R68M	0.68	11.00	12.00	12.00	9.00
SMMS0530-1R0M	1.00	11.00	15.00	10.00	9.00
SMMS0530-1R2M	1.20	15.00	16.00	11.00	9.00
SMMS0530-1R5M	1.50	13.00	18.00	9.00	8.50
SMMS0530-2R2M	2.20	21.00	24.00	7.00	6.50
SMMS0530-3R3M	3.30	33.00	38.00	6.00	5.00
SMMS0530-4R7M	4.70	50.00	60.00	4.50	4.50
SMMS0530-6R8M	6.80	75.00	90.00	3.50	3.50
SMMS0530-100M	10.00	100.00	125.00	3.20	3.20

**Electrical characteristics for SMMS0624 series**

P/N	100KHz 1.0V	D.C.R (mΩ)		Saturation Current	Heat Rating Current
	L0(μH) ±20% '@0A	Typical	Max	I sat (Amp) Typical	I rms (Amp) Typical
SMMS0624-R22M	0.22	2.90	3.20	34.00	21.00
SMMS0624-R33M	0.33	3.70	4.10	22.00	18.00
SMMS0624-R47M	0.47	6.00	6.50	21.00	13.50
SMMS0624-R68M	0.68	8.70	9.40	18.00	11.00
SMMS0624-R82M	0.82	10.60	11.80	17.00	10.00
SMMS0624-1R0M	1.00	13.00	14.20	16.00	9.00
SMMS0624-1R5M	1.50	18.50	21.20	15.00	7.50
SMMS0624-2R2M	2.20	28.00	34.00	14.00	6.50
SMMS0624-3R3M	3.30	36.50	51.60	13.00	5.00
SMMS0624-4R7M	4.70	45.00	63.00	9.00	4.50
SMMS0624-5R6M	5.60	66.00	73.00	8.00	4.00
SMMS0624-6R8M	6.80	72.50	95.00	7.00	3.60
SMMS0624-8R2M	8.20	84.00	106.00	6.50	3.00
SMMS0624-100M	10.00	116.00	129.00	6.00	2.50

**Electrical characteristics for SMMS0630 series**

P/N	100KHz 1.0V	D.C.R (mΩ)		Saturation Current	Heat Rating Current
	L0(μH) ±20% '@0A	Typical	Max	I sat (Amp) Typical	I rms (Amp) Typical
SMMS0630-R15M	0.15	1.55	2.30	41.00	30.00
SMMS0630-R22M	0.22	1.60	2.50	35.00	25.00
SMMS0630-R47M	0.47	4.00	4.50	20.00	18.00
SMMS0630-R68M	0.68	4.75	5.30	19.00	16.00
SMMS0630-1R0M	1.00	6.60	7.25	15.50	13.00
SMMS0630-1R5M	1.50	13.20	16.00	18.00	12.50
SMMS0630-2R2M	2.20	16.50	20.00	14.00	8.50
SMMS0630-3R3M	3.30	24.50	35.00	12.00	7.00
SMMS0630-4R7M	4.70	35.00	40.00	9.00	6.00
SMMS0630-5R6M	5.60	36.00	42.00	7.00	5.70
SMMS0630-6R8M	6.80	44.30	48.00	6.00	5.10
SMMS0630-8R2M	8.20	60.00	64.90	6.00	5.00
SMMS0630-100M	10.00	64.50	68.00	5.50	4.50
SMMS0630-150M	15.00	103.00	115.00	4.60	3.10
SMMS0630-220M	22.00	126.00	135.00	3.50	2.60
SMMS0630-330M	33.00	250.00	270.00	3.00	2.00

**Electrical characteristics for SMMS0650 series**

P/N	100KHz 1.0V	D.C.R (mΩ)		Saturation Current	Heat Rating Current
	L0(μH) ±20% '@0A	Typical	Max	I sat (Amp) Typical	I rms (Amp) Typical
SMMS0650-R22M	0.22	1.10	1.30	35.00	30.00
SMMS0650-R47M	0.47	3.20	3.80	21.00	20.00
SMMS0650-R56M	0.56	3.40	3.90	18.00	18.00
SMMS0650-R68M	0.68	3.90	4.20	16.00	16.00
SMMS0650-R82M	0.82	4.60	4.90	15.00	14.00
SMMS0650-1R0M	1.00	6.50	8.50	13.00	12.00
SMMS0650-1R5M	1.50	7.00	8.50	12.00	10.00
SMMS0650-2R2M	2.20	11.20	12.50	10.00	9.50
SMMS0650-3R3M	3.30	20.00	22.00	9.00	8.50
SMMS0650-4R7M	4.70	26.00	30.00	8.00	6.00
SMMS0650-6R8M	6.80	36.50	41.00	7.00	5.50
SMMS0650-100M	10.00	48.00	55.00	6.00	4.50
SMMS0650-150M	15.00	77.00	85.00	4.00	3.10
SMMS0650-220M	22.00	125.00	140.00	3.50	2.50
SMMS0650-330M	33.00	150.00	200.00	3.00	2.30
SMMS0650-470M	47.00	260.00	300.00	2.80	2.00

**Electrical characteristics for SMMS1040 series**

P/N	100KHz 1.0V	D.C.R (mΩ)		Saturation Current	Heat Rating Current
	L0(μH) ±20% '@0A	Typical	Max	I sat (Amp) Typical	I rms (Amp) Typical
SMMS1040-R22M	0.22	1.20	1.50	60.00	35.00
SMMS1040-R36M	0.36	1.70	1.90	50.00	30.00
SMMS1040-R47M	0.47	1.90	2.20	40.00	30.00
SMMS1040-R56M	0.56	2.10	2.40	33.00	25.00
SMMS1040-R68M	0.68	2.30	3.00	30.00	23.00
SMMS1040-1R0M	1.00	3.00	4.00	28.00	18.00
SMMS1040-1R5M	1.50	4.80	5.40	23.00	16.00
SMMS1040-2R2M	2.20	7.20	9.00	18.00	12.00
SMMS1040-3R3M	3.30	10.80	11.80	16.00	10.00
SMMS1040-4R7M	4.70	17.00	20.00	15.00	8.50
SMMS1040-6R8M	6.80	22.50	25.00	12.00	7.00
SMMS1040-100M	10.00	34.00	37.00	8.50	5.50
SMMS1040-150M	15.00	50.00	55.00	7.00	5.00
SMMS1040-220M	22.00	60.00	66.00	5.00	4.00
SMMS1040-330M	33.00	85.00	92.00	4.50	3.50
SMMS1040-470M	47.00	141.00	155.00	3.50	3.00

**Electrical characteristics for SMMS1050 series**

P/N	100KHz 1.0V	D.C.R (mΩ)		Saturation Current	Heat Rating Current
	L0(μH) ±20% '@0A	Typical	Max	I sat (Amp) Typical	I rms (Amp) Typical
SMMS1050-R82M	0.82	2.50	3.20	39.00	22.00
SMMS1050-1R0M	1.00	2.80	3.50	28.00	18.00
SMMS1050-1R2M	1.20	2.80	3.50	28.00	18.00
SMMS1050-1R5M	1.50	3.90	4.80	25.00	16.00
SMMS1050-2R2M	2.20	6.50	8.20	20.00	13.00
SMMS1050-3R3M	3.30	9.20	12.00	18.00	10.00
SMMS1050-4R7M	4.70	12.40	18.00	14.00	9.50
SMMS1050-5R6M	5.60	18.90	25.00	13.00	8.50
SMMS1050-6R8M	6.80	20.60	28.00	12.00	8.00
SMMS1050-8R2M	8.20	27.40	35.00	10.00	7.00
SMMS1050-100M	10.00	30.20	40.00	8.50	5.50
SMMS1050-150M	15.00	48.00	55.00	7.00	4.50
SMMS1050-220M	22.00	60.00	72.00	5.50	4.00
SMMS1050-330M	33.00	89.00	105.00	5.50	3.50
SMMS1050-470M	47.00	110.00	130.00	4.50	3.00
SMMS1050-680M	68.00	190.00	210.00	3.00	2.00

## Electrical characteristics for SMMS1350 series

P/N	100KHz 1.0V	D.C.R (mΩ)		Saturation Current	Heat Rating Current
	L0(μH) ±20% '@0A	Typical	Max	I sat (Amp) Typical	I rms (Amp) Typical
SMMS1350-R36M	0.36	0.85	1.10	60.00	41.00
SMMS1350-R47M	0.47	1.10	1.30	52.00	39.00
SMMS1350-R68M	0.68	1.20	1.50	40.00	32.00
SMMS1350-R82M	0.82	1.50	1.70	42.00	30.00
SMMS1350-1R0M	1.00	1.90	2.20	35.00	26.00
SMMS1350-1R5M	1.50	2.70	3.20	30.00	23.00
SMMS1350-2R2M	2.20	4.00	5.00	26.00	20.00
SMMS1350-3R3M	3.30	7.00	9.00	22.00	15.00
SMMS1350-4R7M	4.70	9.00	11.00	17.00	12.00
SMMS1350-6R8M	6.80	15.00	18.00	14.00	11.00
SMMS1350-100M	10.00	20.00	23.00	12.00	8.00
SMMS1350-150M	15.00	28.00	32.00	10.00	6.00
SMMS1350-220M	22.00	45.00	52.00	7.00	4.50
SMMS1350-330M	33.00	66.00	75.00	4.00	4.00
SMMS1350-470M	47.00	100.00	120.00	5.00	3.00
SMMS1350-680M	68.00	115.00	135.00	4.50	2.50

## Electrical characteristics for SMMS1360 series

P/N	100KHz 1.0V	D.C.R (mΩ)		Saturation Current	Heat Rating Current
	L0(μH) ±20% '@0A	Typical	Max	I sat (Amp) Typical	I rms (Amp) Typical
SMMS1360-R68M	0.68	1.20	1.40	55.00	33.00
SMMS1360-1R0M	1.00	1.50	1.70	35.00	30.00
SMMS1360-2R2M	2.20	2.60	3.00	25.00	20.00
SMMS1360-3R3M	3.30	4.20	5.00	22.00	16.00
SMMS1360-4R7M	4.70	6.80	8.00	18.00	13.00
SMMS1360-6R8M	6.80	10.00	14.00	15.00	12.00
SMMS1360-8R2M	8.20	13.50	16.00	14.00	11.00
SMMS1360-100M	10.00	18.00	21.00	12.50	10.00
SMMS1360-220M	22.00	34.00	38.00	8.00	5.00
SMMS1360-270M	27.00	36.00	42.00	7.00	4.50
SMMS1360-330M	33.00	47.00	56.00	7.00	4.50
SMMS1360-470M	47.00	58.00	70.00	6.00	4.00
SMMS1360-680M	68.00	105.00	125.00	5.00	3.50
SMMS1360-820M	82.00	115.00	140.00	4.00	3.00
SMMS1360-101M	100.00	130.00	200.00	4.30	2.50