



PRS 系列功率电感 PRS Series SMD Power Inductors



特征 FEATURES

- 超薄、自带磁屏蔽结构
- 小尺寸, 大电流
- 适合于表面贴装, 适合于回流焊
- Low profile and Own magnetic shielding structure
- small dimension, High saturation current
- SMT type, suitable for solder reflow

应用 APPLICATIONS

- 手机、HDD、DVC、DSC、PDA、液晶显示器等小型 DC/DC 变换器用
- For small DC/DC converter (cellular Phone, HDD, DVC, DSC, PDA, LCD display etc.)

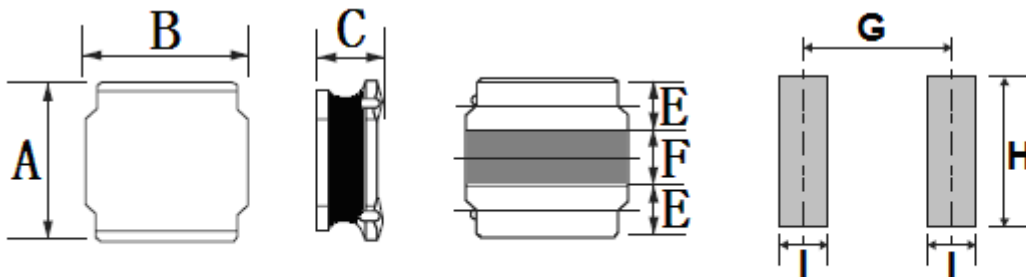
产品规格型号表示方法 ORDERING CODE

PRS	8040	—	220	M	T
①	②		③	④	⑤

① 产品代号 Code		② 规格尺寸 Dimensions (L×W×T) (mm)		③ 感量(μH) Inductance		④ 误差 Tolerance		⑤ 包装方式 Packaging Style	
PRS	PRS 系列 功率电感	3010	3.0×3.0×1.0	100	10	K	±10%	T	Tape&Reel
		3012	3.0×3.0×1.2	150	15	M	±20%	B	Bulk
		3015	3.0×3.0×1.5	220	22				
		4010	4.0×4.0×1.0						
		4012	4.0×4.0×1.2						
		4018	4.0×4.0×1.8						
		4026	4.0×4.0×2.6						
		6012	6.0×6.0×1.2						
		6020	6.0×6.0×2.0						
		6028	6.0×6.0×2.8						
		6045	6.0×6.0×4.5						
		8040	8.0×8.0×4.0						

外形尺寸 Dimensions

单位(Unit): mm



推荐焊盘尺寸

Recommended Land Patterns



型号 Part	A	B	C	E	F	G	H	I
PRS3010	3.0±0.2	3.0±0.2	1.0max	0.9±0.2	1.2±0.2	2.2	2.7	0.8
PRS3012	3.0±0.2	3.0±0.2	1.2max	0.9±0.2	1.2±0.2	2.2	2.7	0.8
PRS3015	3.0±0.2	3.0±0.2	1.5max	0.9±0.2	1.2±0.2	2.2	2.7	0.8
PRS4010	4.0±0.2	4.0±0.2	1.0max	1.1±0.2	1.8±0.2	2.8	3.7	1.2
PRS4012	4.0±0.2	4.0±0.2	1.2max	1.1±0.2	1.8±0.2	2.8	3.7	1.2
PRS4018	4.0±0.2	4.0±0.2	1.8max	1.1±0.2	1.8±0.2	2.8	3.7	1.2
PRS4026	4.0±0.2	4.0±0.2	2.6max	1.1±0.2	1.8±0.2	2.8	3.7	1.2
PRS6012	6.0±0.2	6.0±0.2	1.2max	1.3±0.2	3.4±0.2	4.7	5.7	1.6
PRS6020	6.0±0.2	6.0±0.2	2.0max	1.3±0.2	3.4±0.2	4.7	5.7	1.6
PRS6028	6.0±0.2	6.0±0.2	2.8max	1.3±0.2	3.4±0.2	4.7	5.7	1.6
PRS6045	6.0±0.2	6.0±0.2	4.5max	1.3±0.2	3.4±0.2	4.7	5.7	1.6
PRS8040	8.0±0.2	8.0±0.2	4.0max	1.8±0.2	4.4±0.2	5.6	7.5	1.8

电性能参数 Electrical Characteristics

PRS3010 Series

Part Number	Inductance (μH)	Tolerance	Test Freq.	SRF(MHz) Min	DCR (Ω) ±20%	Isat (A)	Irms (A)
PRS3010-1R0NT	1.0	±30%	100kHz	126	0.065	1.30	1.40
PRS3010-1R5NT	1.5	±30%	100kHz	98	0.080	1.20	1.30
PRS3010-2R2MT	2.2	±20%	100kHz	82	0.095	1.10	1.10
PRS3010-3R3MT	3.3	±20%	100kHz	63	0.140	0.87	0.94
PRS3010-4R7MT	4.7	±20%	100kHz	56	0.190	0.75	0.78
PRS3010-6R8MT	6.8	±20%	100kHz	46	0.30	0.61	0.63
PRS3010-100MT	10	±20%	100kHz	35	0.45	0.50	0.51
PRS3010-150MT	15	±20%	100kHz	30	0.74	0.40	0.40
PRS3010-220MT	22	±20%	100kHz	25	1.03	0.35	0.35
PRS3010-330MT	33	±20%	100kHz	20	1.55	0.26	0.275
PRS3010-470MT	47	±20%	100kHz	17	2.05	0.22	0.235

PRS3012 Series

Part Number	Inductance (μH)	Tolerance	Test Freq.	SRF(MHz) Min	DCR (Ω) ±20%	Isat (A)	Irms (A)
PRS3012-1R0NT	1.0	±30%	100kHz	110	0.050	1.50	1.49
PRS3012-1R5NT	1.5	±30%	100kHz	92	0.060	1.36	1.40
PRS3012-2R2MT	2.2	±20%	100kHz	70	0.080	1.10	1.20
PRS3012-3R3MT	3.3	±20%	100kHz	55	0.100	0.91	1.05
PRS3012-4R7MT	4.7	±20%	100kHz	48	0.130	0.77	0.98
PRS3012-6R8MT	6.8	±20%	100kHz	40	0.190	0.67	0.74
PRS3012-100MT	10	±20%	100kHz	32	0.290	0.54	0.63
PRS3012-150MT	15	±20%	100kHz	27	0.450	0.44	0.485
PRS3012-220MT	22	±20%	100kHz	22	0.630	0.375	0.42
PRS3012-330MT	33	±20%	100kHz	19	1.030	0.31	0.33
PRS3012-470MT	47	±20%	100kHz	17	1.450	0.25	0.28



PRS3015 Series

Part Number	Inductance (μ H)	Tolerance	Test Freq.	SRF(MHz) Min	DCR (Ω) $\pm 20\%$	Isat (A)	Irms (A)
PRS3015-1R0NT	1.0	$\pm 30\%$	100kHz	100	0.030	2.10	2.10
PRS3015-1R5NT	1.5	$\pm 30\%$	100kHz	87	0.040	1.80	1.82
PRS3015-2R2MT	2.2	$\pm 20\%$	100kHz	64	0.060	1.48	1.50
PRS3015-3R3MT	3.3	$\pm 20\%$	100kHz	49	0.080	1.21	1.23
PRS3015-4R7MT	4.7	$\pm 20\%$	100kHz	40	0.12	1.02	1.04
PRS3015-6R8MT	6.8	$\pm 20\%$	100kHz	36	0.16	0.87	0.88
PRS3015-100MT	10	$\pm 20\%$	100kHz	28	0.23	0.70	0.71
PRS3015-150MT	15	$\pm 20\%$	100kHz	23	0.36	0.56	0.56
PRS3015-220MT	22	$\pm 20\%$	100kHz	20	0.52	0.47	0.47
PRS3015-330MT	33	$\pm 20\%$	100kHz	18	0.84	0.39	0.37
PRS3015-470MT	47	$\pm 20\%$	100kHz	17	1.34	0.32	0.30

PRS4010 Series

Part Number	Inductance (μ H)	Tolerance	Test Freq.	SRF(MHz) Min	DCR (Ω) $\pm 20\%$	Isat (A)	Irms (A)
PRS4010-1R0NT	1.0	$\pm 30\%$	100kHz	116	0.10	1.80	1.05
PRS4010-2R2NT	2.2	$\pm 30\%$	100kHz	73	0.15	1.15	0.89
PRS4010-3R3MT	3.3	$\pm 20\%$	100kHz	58	0.18	1.10	0.82
PRS4010-4R7MT	4.7	$\pm 20\%$	100kHz	47	0.21	0.90	0.75
PRS4010-6R8MT	6.8	$\pm 20\%$	100kHz	38	0.30	0.74	0.62
PRS4010-100MT	10	$\pm 20\%$	100kHz	31	0.38	0.56	0.60
PRS4010-150MT	15	$\pm 20\%$	100kHz	24	0.51	0.47	0.51
PRS4010-220MT	22	$\pm 20\%$	100kHz	19	0.87	0.36	0.40
PRS4010-330MT	33	$\pm 20\%$	100kHz	15	1.54	0.28	0.30
PRS4010-470MT	47	$\pm 20\%$	100kHz	13	1.81	0.24	0.28

PRS4012 Series

Part Number	Inductance (μ H)	Tolerance	Test Freq.	SRF(MHz) Min	DCR (Ω) $\pm 20\%$	Isat (A)	Irms (A)
PRS4012-1R0NT	1.0	$\pm 30\%$	100kHz	131	0.06	2.50	1.50
PRS4012-2R2MT	2.2	$\pm 20\%$	100kHz	66	0.09	1.65	1.20
PRS4012-3R3MT	3.3	$\pm 20\%$	100kHz	50	0.13	1.20	0.98
PRS4012-4R7MT	4.7	$\pm 20\%$	100kHz	45	0.14	1.05	0.96
PRS4012-6R8MT	6.8	$\pm 20\%$	100kHz	35	0.18	0.90	0.84
PRS4012-100MT	10	$\pm 20\%$	100kHz	28	0.24	0.74	0.77
PRS4012-150MT	15	$\pm 20\%$	100kHz	23	0.40	0.56	0.60
PRS4012-220MT	22	$\pm 20\%$	100kHz	18	0.48	0.51	0.54
PRS4012-330MT	33	$\pm 20\%$	100kHz	15	0.81	0.40	0.42
PRS4012-470MT	47	$\pm 20\%$	100kHz	12	1.00	0.35	0.37

PRS4018 Series

Part Number	Inductance (μ H)	Tolerance	Test Freq.	SRF(MHz) Min	DCR (Ω) $\pm 30\%$	Isat (A)	Irms (A)
PRS4018-1R0NT	1.0	$\pm 30\%$	100kHz	80	0.03	4.00	1.83
PRS4018-2R2MT	2.2	$\pm 20\%$	100kHz	52	0.06	2.70	1.44
PRS4018-3R3MT	3.3	$\pm 20\%$	100kHz	44	0.07	2.00	1.23
PRS4018-4R7MT	4.7	$\pm 20\%$	100kHz	34	0.09	1.70	1.20



Part Number	Inductance (μH)	Tolerance	Test Freq.	SRF(MHz) Min	DCR (Ω) ±30%	Isat (A)	Irms (A)
PRS4018-6R8MT	6.8	±20%	100kHz	29	0.11	1.45	1.06
PRS4018-100MT	10	±20%	100kHz	24	0.18	1.20	0.84
PRS4018-150MT	15	±20%	100kHz	19	0.25	0.94	0.65
PRS4018-220MT	22	±20%	100kHz	16	0.36	0.80	0.59
PRS4018-330MT	33	±20%	100kHz	12	0.53	0.65	0.49
PRS4018-470MT	47	±20%	100kHz	10	0.65	0.57	0.42
PRS4018-680MT	68	±20%	100kHz	8.3	1.00	0.47	0.32
PRS4018-101MT	100	±20%	100kHz	6.5	1.50	0.40	0.27
PRS4018-151MT	150	±20%	100kHz	5.5	2.50	0.31	0.22
PRS4018-221MT	220	±20%	100kHz	4.0	4.00	0.27	0.17

PRS4026 Series

Part Number	Inductance (μH)	Tolerance	Test Freq.	SRF(MHz) Min	DCR (Ω) ±30%	Isat (A)	Irms (A)
PRS4026-1R2NT	1.2	±30%	100kHz	120	0.030	3.10	2.30
PRS4026-2R3NT	2.3	±30%	100kHz	96	0.040	2.10	1.97
PRS4026-3R5MT	3.5	±20%	100kHz	58	0.050	1.80	1.70
PRS4026-4R7MT	4.7	±20%	100kHz	46	0.055	1.45	1.60
PRS4026-6R6MT	6.6	±20%	100kHz	33	0.065	1.30	1.50
PRS4026-100MT	10	±20%	100kHz	26	0.085	1.00	1.30
PRS4026-150MT	15	±20%	100kHz	19	0.110	0.90	1.10
PRS4026-220MT	22	±20%	100kHz	13	0.165	0.61	0.90
PRS4026-330MT	33	±20%	100kHz	9	0.200	0.54	0.80
PRS4026-470MT	47	±20%	100kHz	6	0.300	0.41	0.65

PRS6012 Series

Part Number	Inductance (μH)	Tolerance	Test Freq.	SRF(MHz) Min	DCR (Ω) ±20%	Isat (A)	Irms (A)
PRS6012-2R5NT	2.5	±30%	100kHz	45	0.090	2.10	1.73
PRS6012-4R0NT	4.0	±30%	100kHz	39	0.105	1.80	1.57
PRS6012-5R3MT	5.3	±20%	100kHz	34	0.110	1.50	1.40
PRS6012-6R8MT	6.8	±20%	100kHz	30	0.165	1.30	1.18
PRS6012-100MT	10	±20%	100kHz	22	0.235	1.00	1.00
PRS6012-150MT	15	±20%	100kHz	18	0.330	0.80	0.79
PRS6012-220MT	22	±20%	100kHz	12	0.530	0.76	0.63
PRS6012-330MT	33	±20%	100kHz	8	0.700	0.59	0.53
PRS6012-470MT	47	±20%	100kHz	6	1.050	0.52	0.46
PRS6012-680MT	68	±20%	100kHz	3	1.350	0.44	0.41
PRS6012-101MT	100	±20%	100kHz	1	2.180	0.35	0.32

PRS6020 Series

Part Number	Inductance (μH)	Tolerance	Test Freq.	SRF(MHz) Min	DCR (Ω) ±30%	Isat (A)	Irms (A)
PRS6020-0R8MT	0.80	±20%	100kHz	110	0.020	5.50	3.80
PRS6020-1R5MT	1.5	±20%	100kHz	93	0.026	4.00	3.20
PRS6020-2R2MT	2.2	±20%	100kHz	73	0.034	3.20	2.70
PRS6020-3R3MT	3.3	±20%	100kHz	55	0.040	2.80	2.60
PRS6020-4R7MT	4.7	±20%	100kHz	43	0.058	2.40	2.00
PRS6020-6R8MT	6.8	±20%	100kHz	30	0.085	2.00	1.80
PRS6020-100MT	10	±20%	100kHz	18	0.125	1.70	1.40
PRS6020-220MT	22	±20%	100kHz	11	0.290	1.05	0.95

PRS6028 Series



Part Number	Inductance (μH)	Tolerance	Test Freq.	SRF(MHz) Min	DCR (Ω) ±30%	Isat (A)	Irms (A)
PRS6028-0R9NT	0.9	±30%	100kHz	90	0.013	6.60	4.60
PRS6028-1R5NT	1.5	±30%	100kHz	78	0.016	5.00	4.20
PRS6028-2R2NT	2.2	±30%	100kHz	68	0.020	4.20	3.70
PRS6028-3R0NT	3.0	±30%	100kHz	55	0.023	3.60	3.40
PRS6028-4R7MT	4.7	±20%	100kHz	39	0.031	2.70	3.00
PRS6028-6R0MT	6.0	±20%	100kHz	30	0.040	2.50	2.50
PRS6028-100MT	10	±20%	100kHz	20	0.065	1.90	1.90
PRS6028-150MT	15	±20%	100kHz	17	0.095	1.60	1.80
PRS6028-220MT	22	±20%	100kHz	12	0.135	1.30	1.40
PRS6028-330MT	33	±20%	100kHz	10	0.22	1.10	1.10
PRS6028-470MT	47	±20%	100kHz	8	0.30	0.95	0.92
PRS6028-680MT	68	±20%	100kHz	5	0.42	0.76	0.77
PRS6028-101MT	100	±20%	100kHz	3	0.60	0.62	0.66

PRS6045 Series

Part Number	Inductance (μH)	Tolerance	Test Freq.	SRF(MHz) Min	DCR (Ω) ±30%	Isat (A)	Irms (A)
PRS6045-1R0NT	1.0	±30%	100kHz	110	0.014	8.5	4.2
PRS6045-1R3NT	1.3	±30%	100kHz	95	0.016	8.0	4.0
PRS6045-1R8NT	1.8	±30%	100kHz	80	0.018	7.0	3.7
PRS6045-2R3NT	2.3	±30%	100kHz	60	0.021	6.0	3.5
PRS6045-3R0NT	3.0	±30%	100kHz	45	0.024	5.0	3.2
PRS6045-4R5MT	4.5	±20%	100kHz	25	0.031	4.0	3.0
PRS6045-6R3MT	6.3	±20%	100kHz	15	0.038	3.8	2.8
PRS6045-100MT	10	±20%	100kHz	12	0.047	3.0	2.5
PRS6045-150MT	15	±20%	100kHz	10	0.077	2.3	1.9
PRS6045-220MT	22	±20%	100kHz	7	0.115	1.9	1.5
PRS6045-330MT	33	±20%	100kHz	6	0.145	1.5	1.4
PRS6045-470MT	47	±20%	100kHz	5	0.220	1.3	1.1
PRS6045-680MT	68	±20%	100kHz	4	0.33	1.0	0.9
PRS6045-101MT	100	±20%	100kHz	3	0.50	0.8	0.7

PRS8040 Series

Part Number	Inductance (μH)	Tolerance	Test Freq.	SRF(MHz) Min	DCR (Ω) ±30%	Isat (A)	Irms (A)
PRS8040-0R9NT	0.9	±30%	100kHz	85	0.006	11.0	7.8
PRS8040-1R4NT	1.4	±30%	100kHz	63	0.007	9.0	7.0
PRS8040-2R0NT	2.0	±30%	100kHz	50	0.009	7.4	6.3
PRS8040-3R6NT	3.6	±30%	100kHz	34	0.015	5.3	4.9
PRS8040-4R7NT	4.7	±30%	100kHz	30	0.018	4.7	4.1
PRS8040-6R8NT	6.8	±30%	100kHz	24	0.025	4.0	3.7
PRS8040-100MT	10	±20%	100kHz	22	0.034	3.4	3.1
PRS8040-150MT	15	±20%	100kHz	16	0.050	2.7	2.4
PRS8040-220MT	22	±20%	100kHz	13	0.066	2.2	2.2
PRS8040-330MT	33	±20%	100kHz	12	0.10	1.9	1.7
PRS8040-470MT	47	±20%	100kHz	8	0.15	1.5	1.4
PRS8040-680MT	68	±20%	100kHz	7	0.23	1.2	1.1
PRS8040-101MT	100	±20%	100kHz	6	0.29	1.0	1.0

Isat: 饱和电流, 加 Isat 时, 电感量下降≤30%

Isat: Saturation Current, the current when the inductance becomes 30% lower than its initial value.

Irms: 温升电流, 加 Irms 时, 器件温度升高≤40℃

Irms: Temperature Rise Current, the current when temperature of coil increases up to 40℃.