

SMD Power Inductor (ENR Series) 贴片功率电感 ENR 系列

FEATURES 特点

- low profile, low RDC, high current handling capacities
小尺寸、低直流电阻、高电流
- Magnetically shielded structure that ensures the high-density mounting configurations.
高密度封装的磁屏蔽结构
- Flat bottom surface ensures secure, reliable mounting.
平坦焊面便于安装
- Provided in embossed carrier tape packaging for use with automatic mounting machines.
编带包装便于自动贴装

APPLICATIONS 应用

- Ideally used in Portable telephones, PDA, DSC, DC-DC Converters, etc.
用于手机、掌上电脑、数字信号控制器，DC-DC 转换等。

Product Identification 产品标识

ENR - 201610 - 1R0 T
① ② ③ ④

- ① Series Name 系列名称
② Product Dimensions 产品尺寸：(201610=2.0*1.6*1.0 mm)
③ Inductance Value 电感量：(R68=0.68uH 1R0=1.0uH 100=10uH)
④ Inductance Tolerance 电感量公差：(M=20% ; T=30%)

Shapes And Dimensions 外形及尺寸示意图

Fig1

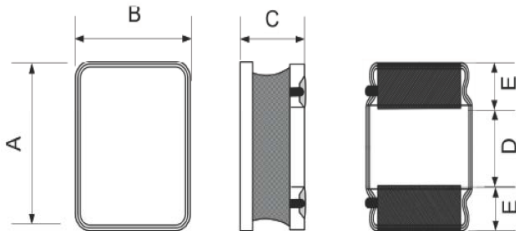
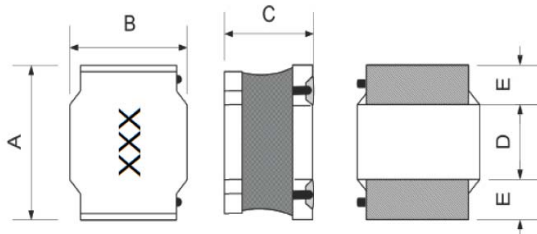


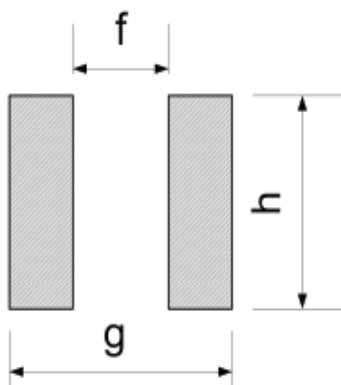
Fig2



Series	Dimensions(mm)					Shape
	A	B	C Max.	D Ref.	E Ref.	
201610	2.0±0.2	1.6±0.2	1.0	0.6	0.60	Fig1
252010	2.5±0.2	2.0±0.2	1.0	0.8	0.80	Fig1
252012	2.5±0.2	2.0±0.2	1.2	0.8	0.80	Fig1
3010	3.0±0.2	3.0±0.2	1.0	1.5	0.75	Fig2
3012	3.0±0.2	3.0±0.2	1.2	1.5	0.75	Fig2
3015	3.0±0.2	3.0±0.2	1.5	1.5	0.75	Fig2
4012	4.0±0.2	4.0±0.2	1.2	2.1	0.95	Fig2
4018	4.0±0.2	4.0±0.2	1.8	2.1	0.95	Fig2
4030	4.0±0.2	4.0±0.2	3.0	2.1	0.95	Fig2
5020	5.0±0.2	5.0±0.2	2.0	2.5	1.25	Fig2
5040	5.0±0.2	5.0±0.2	4.0	2.5	1.25	Fig2
6028	6.0±0.3	6.0±0.3	2.8	2.9	1.55	Fig2
6045	6.0±0.3	6.0±0.3	4.5	2.9	1.55	Fig2
8040	8.0±0.3	8.0±0.3	4.2	4.0	2.00	Fig2

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Recommended Footprint 焊位示意图



Series	Dimensions(mm)		
	f Ref.	g Ref.	h Ref.
2016	0.8	2.2	1.6
2520	0.8	2.5	2.0
30	1.5	3.1	2.7
40	1.9	4.1	3.7
50	2.3	5.1	4.2
60	2.8	6.2	5.7
80	3.8	7.5	7.4

Electrical Characteristics 电气性能

ENR-201610 Series

Part Number	Inductance @100kHz,1V (μ H)	Tolerance ($\pm$ %)	RDC (Ω) Max.	Saturation current (Isat) (A)MAX.	Heat Rating current (Irms) (A)MAX.
ENR-201610-1R0T	1.0	30	0.22	1.26	1.44
ENR-201610-1R5T	1.5	30	0.34	0.99	1.26
ENR-201610-2R2T	2.2	30	0.42	0.90	1.08
ENR-201610-3R3M	3.3	20	0.66	0.74	0.81
ENR-201610-4R7M	4.7	20	0.87	0.61	0.72
ENR-201610-5R6M	5.6	20	0.94	0.58	0.72
ENR-201610-6R8M	6.8	20	1.26	0.51	0.63
ENR-201610-100M	10	20	1.88	0.42	0.52
ENR-201610-120M	12	20	2.15	0.38	0.38
ENR-201610-220M	22	20	3.77	0.28	0.36

ENR-252010 Series

Part Number	Inductance @100kHz,1V (μ H)	Tolerance ($\pm$ %)	RDC (Ω) Max.	Saturation current (Isat) (A)MAX.	Heat Rating current (Irms) (A)MAX.
ENR-252010-1R0T	1.0	30	0.108	1.85	1.65
ENR-252010-1R5T	1.5	30	0.182	1.80	1.30
ENR-252010-2R2T	2.2	30	0.209	1.20	1.20
ENR-252010-3R3M	3.3	20	0.328	1.05	0.90
ENR-252010-4R7M	4.7	20	0.563	0.95	0.73
ENR-252010-5R6M	5.6	20	0.622	0.80	0.70
ENR-252010-6R8M	6.8	20	0.896	0.78	0.59
ENR-252010-100M	10	20	0.910	0.65	0.50
ENR-252010-150M	15	20	1.450	0.47	0.43
ENR-252010-220M	22	20	1.839	0.45	0.41



SMD Power Inductor (ENR Series) 贴片功率电感 ENR 系列

Electrical Characteristics 电气性能

ENR-252012 Series

Part Number	Inductance @100kHz,1V (μ H)	Tolerance ($\pm\%$)	RDC (Ω) Max.	Saturation current (Isat) (A)MAX.	Heat Rating current (Irms) (A)MAX.
ENR-252012-1R0T	1.0	30	0.090	2.59	1.93
ENR-252012-1R5T	1.5	30	0.147	2.24	1.40
ENR-252012-2R2T	2.2	30	0.216	1.85	1.15
ENR-252012-3R3M	3.3	20	0.264	1.61	1.04
ENR-252012-4R7M	4.7	20	0.377	1.12	0.84
ENR-252012-5R6M	5.6	20	0.538	1.11	0.73
ENR-252012-6R8M	6.8	20	0.581	0.98	0.69
ENR-252012-100M	10	20	0.690	0.79	0.62
ENR-252012-220M	22	20	1.976	0.53	0.38

ENR-3010 Series

Part Number	Inductance @100kHz,1V (μ H)	Tolerance ($\pm\%$)	RDC (Ω) $\pm 30\%$	Saturation current (Isat) (A)MAX.	Heat Rating current (Irms) (A)MAX.
ENR-3010-1R0T	1.0	30	0.065	1.40	1.45
ENR-3010-1R5T	1.5	30	0.080	1.27	1.30
ENR-3010-2R2T	2.2	30	0.110	1.15	1.09
ENR-3010-3R3M	3.3	20	0.145	0.97	0.96
ENR-3010-4R7M	4.7	20	0.225	0.75	0.77
ENR-3010-6R8M	6.8	20	0.305	0.55	0.66
ENR-3010-8R2M	8.2	20	0.400	0.55	0.58
ENR-3010-100M	10	20	0.400	0.55	0.58
ENR-3010-150M	15	20	0.610	0.42	0.47
ENR-3010-220M	22	20	0.930	0.35	0.38

ENR-3012 Series

Part Number	Inductance @100kHz,1V (μ H)	Tolerance ($\pm\%$)	RDC (Ω) $\pm 30\%$	Saturation current (Isat) (A)MAX.	Heat Rating current (Irms) (A)MAX.
ENR-3012-1R0T	1.0	30	0.040	1.87	2.20
ENR-3012-1R5T	1.5	30	0.045	1.62	2.01
ENR-3012-2R2T	2.2	30	0.075	1.20	1.55
ENR-3012-3R3M	3.3	20	0.100	1.05	1.36
ENR-3012-4R7M	4.7	20	0.120	0.90	1.24
ENR-3012-6R8M	6.8	20	0.190	0.75	0.98
ENR-3012-100M	10	20	0.265	0.60	0.83
ENR-3012-150M	15	20	0.360	0.45	0.71
ENR-3012-220M	22	20	0.645	0.42	0.53



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Electrical Characteristics 电气性能

ENR-3015 Series

Part Number	Inductance @100kHz,1V (uH)	Tolerance (±%)	RDC (Ω) ±30%	Saturation current (Isat) (A)MAX.	Heat Rating current (Irms) (A)MAX.
ENR-3015-1R0T	1.0	30	0.030	2.32	2.35
ENR-3015-1R5T	1.5	30	0.050	2.30	1.70
ENR-3015-2R2T	2.2	30	0.060	1.60	1.60
ENR-3015-3R3M	3.3	20	0.080	1.32	1.36
ENR-3015-4R7M	4.7	20	0.125	1.10	1.09
ENR-3015-5R6M	5.6	20	0.168	0.93	0.92
ENR-3015-6R8M	6.8	20	0.200	0.85	0.85
ENR-3015-100M	10	20	0.250	0.72	0.77
ENR-3015-150M	15	20	0.350	0.66	0.65
ENR-3015-220M	22	20	0.460	0.52	0.57
ENR-3015-330M	33	20	0.820	0.44	0.43
ENR-3015-470M	47	20	1.250	0.35	0.35
ENR-3015-680M	68	20	2.700	0.28	0.23
ENR-3015-101M	100	20	3.110	0.23	0.21

ENR-4012 Series

Part Number	Inductance @100kHz,1V (uH)	Tolerance (±%)	RDC (Ω) ±30%	Saturation current (Isat) (A)MAX.	Heat Rating current (Irms) (A)MAX.
ENR-4012-1R0T	1.0	30	0.050	2.61	1.65
ENR-4012-1R5T	1.5	30	0.065	2.10	1.46
ENR-4012-2R2T	2.2	30	0.080	1.76	1.32
ENR-4012-3R3M	3.3	20	0.110	1.72	1.12
ENR-4012-4R7M	4.7	20	0.125	1.15	1.05
ENR-4012-5R6M	5.6	20	0.140	1.00	1.00
ENR-4012-6R8M	6.8	20	0.198	0.85	0.84
ENR-4012-100M	10	20	0.265	0.80	0.77
ENR-4012-150M	15	20	0.340	0.56	0.64
ENR-4012-220M	22	20	0.587	0.46	0.49
ENR-4012-330M	33	20	0.810	0.42	0.42
ENR-4012-470M	47	20	1.100	0.35	0.37



SMD Power Inductor (ENR Series) 贴片功率电感 ENR 系列

Electrical Characteristics 电气性能

ENR-4018 Series

Part Number	Inductance @100kHz,1V (uH)	Tolerance (±%)	RDC (Ω) ± 30%	Saturation current (Isat) (A)MAX.	Heat Rating current (Irms) (A)MAX.
ENR-4018-1R0T	1.0	30	0.025	4.80	2.00
ENR-4018-1R5T	1.5	30	0.030	3.35	1.80
ENR-4018-2R2T	2.2	30	0.045	2.70	1.65
ENR-4018-3R3M	3.3	20	0.070	2.45	1.23
ENR-4018-4R7M	4.7	20	0.090	1.70	1.20
ENR-4018-6R8M	6.8	20	0.110	1.45	1.06
ENR-4018-100M	10	20	0.180	1.30	0.84
ENR-4018-150M	15	20	0.250	0.94	0.65
ENR-4018-220M	22	20	0.360	0.80	0.59
ENR-4018-330M	33	20	0.530	0.56	0.49
ENR-4018-470M	47	20	0.650	0.57	0.42
ENR-4018-680M	68	20	1.000	0.47	0.32
ENR-4018-101M	100	20	1.750	0.40	0.25

ENR-4030 Series

Part Number	Inductance @100kHz,1V (uH)	Tolerance (±%)	RDC (Ω) ± 30%	Saturation current (Isat) (A)MAX.	Heat Rating current (Irms) (A)MAX.
ENR-4030-1R0T	1.0	30	0.014	5.26	4.15
ENR-4030-1R5T	1.5	30	0.020	4.84	3.34
ENR-4030-2R2T	2.2	30	0.030	4.90	2.95
ENR-4030-3R3M	3.3	20	0.040	3.30	2.40
ENR-4030-4R7M	4.7	20	0.060	2.90	2.00
ENR-4030-5R6M	5.6	20	0.065	2.60	1.95
ENR-4030-6R8M	6.8	20	0.090	2.75	1.60
ENR-4030-8R2M	6.8	20	0.090	2.75	1.60
ENR-4030-100M	10	20	0.100	1.95	1.50
ENR-4030-120M	12	20	0.135	1.70	1.30
ENR-4030-150M	15	20	0.190	1.65	1.11
ENR-4030-180M	18	20	0.200	1.40	1.10
ENR-4030-220M	22	20	0.225	1.30	1.00
ENR-4030-330M	33	20	0.330	1.10	0.84
ENR-4030-470M	47	20	0.445	0.95	0.72
ENR-4030-560M	56	20	0.555	0.85	0.65
ENR-4030-680M	68	20	0.868	0.72	0.52
ENR-4030-820M	82	20	1.060	0.66	0.47
ENR-4030-101M	100	20	1.150	0.60	0.45
ENR-4030-121M	120	20	1.350	0.55	0.42
ENR-4030-151M	150	20	1.800	0.50	0.35
ENR-4030-221M	220	20	2.500	0.40	0.30



SMD Power Inductor (ENR Series) 贴片功率电感 ENR 系列

Electrical Characteristics 电气性能

ENR-5020 Series

Part Number	Inductance @100kHz,1V (μ H)	Tolerance ($\pm\%$)	RDC (Ω) $\pm 30\%$	Saturation current (I_{sat}) (A)MAX.	Heat Rating current (I_{rms}) (A)MAX.
ENR-5020-R68T	0.68	30	0.017	5.50	4.00
ENR-5020-1R0T	1.0	30	0.020	4.10	3.80
ENR-5020-1R5T	1.5	30	0.026	4.10	3.20
ENR-5020-2R2T	2.2	30	0.032	3.20	2.90
ENR-5020-3R3M	3.3	20	0.043	2.55	2.50
ENR-5020-4R7M	4.7	20	0.057	2.50	2.20
ENR-5020-5R6M	5.6	20	0.064	2.30	2.05
ENR-5020-6R8M	6.8	20	0.083	2.05	1.80
ENR-5020-8R2M	6.8	20	0.098	1.85	1.65
ENR-5020-100M	10	20	0.110	1.70	1.55
ENR-5020-120M	12	20	0.140	1.50	1.40
ENR-5020-150M	15	20	0.165	1.00	1.11
ENR-5020-180M	18	20	0.200	1.35	1.25
ENR-5020-220M	22	20	0.226	1.15	1.10
ENR-5020-330M	33	20	0.390	0.92	0.90
ENR-5020-470M	47	20	0.523	0.77	0.77
ENR-5020-560M	56	20	0.630	0.77	0.70
ENR-5020-680M	68	20	0.740	0.65	0.64
ENR-5020-820M	82	20	0.965	0.65	0.50
ENR-5020-101M	100	20	1.100	0.53	0.53
ENR-5020-121M	120	20	1.350	0.42	0.40

ENR-5040 Series

Part Number	Inductance @100kHz,1V (μ H)	Tolerance ($\pm\%$)	RDC (Ω) $\pm 30\%$	Saturation current (I_{sat}) (A)MAX.	Heat Rating current (I_{rms}) (A)MAX.
ENR-5040-1R0T	1.0	30	0.012	7.35	4.90
ENR-5040-1R5T	1.5	30	0.015	6.30	4.30
ENR-5040-2R2T	2.2	30	0.019	4.90	3.80
ENR-5040-3R3M	3.3	20	0.024	3.95	3.40
ENR-5040-4R7M	4.7	20	0.030	3.50	3.00
ENR-5040-5R6M	5.6	20	0.035	3.00	2.80
ENR-5040-6R8M	6.8	20	0.043	2.90	2.50
ENR-5040-8R2M	6.8	20	0.048	2.70	2.30
ENR-5040-100M	10	20	0.064	2.35	2.10
ENR-5040-150M	15	20	0.086	2.00	2.00
ENR-5040-220M	22	20	0.129	1.60	1.50
ENR-5040-330M	33	20	0.188	1.30	1.20
ENR-5040-470M	47	20	0.272	1.10	1.00
ENR-5040-680M	68	20	0.400	0.90	0.80
ENR-5040-101M	100	20	0.560	0.75	0.70
ENR-5040-151M	150	20	0.750	0.65	0.60



SMD Power Inductor (ENR Series) 贴片功率电感 ENR 系列

Electrical Characteristics 电气性能

ENR-6028Series

Part Number	Inductance @100kHz,1V (uH)	Tolerance (±%)	RDC (Ω) ±30%	Saturation current (Isat) (A)MAX.	Heat Rating current (Irms) (A)MAX.
ENR-6028-R82T	0.82	30	0.010	6.50	5.20
ENR-6028-1R0T	1.0	30	0.011	5.75	5.20
ENR-6028-1R5T	1.5	30	0.013	6.00	4.58
ENR-6028-2R2T	2.2	30	0.020	5.10	3.75
ENR-6028-3R3M	3.3	20	0.025	4.15	3.48
ENR-6028-4R7M	4.7	20	0.030	3.00	3.08
ENR-6028-5R6M	5.6	20	0.045	3.10	2.50
ENR-6028-6R8M	6.8	20	0.047	2.60	2.40
ENR-6028-8R2M	8.2	20	0.055	2.30	2.25
ENR-6028-100M	10	20	0.072	2.04	1.95
ENR-6028-120M	12	20	0.080	1.80	1.85
ENR-6028-150M	15	20	0.125	1.75	1.45
ENR-6028-180M	18	20	0.126	1.52	1.42
ENR-6028-220M	22	20	0.140	1.45	1.40
ENR-6028-330M	33	20	0.185	1.35	1.22
ENR-6028-470M	47	20	0.315	1.15	1.06
ENR-6028-560M	56	20	0.345	1.05	0.89
ENR-6028-680M	68	20	0.360	0.80	0.86
ENR-6028-820M	82	20	0.500	0.80	0.70
ENR-6028-101M	100	20	0.500	0.65	0.68

SMD Power Inductor (ENR Series) 贴片功率电感 ENR 系列

Electrical Characteristics 电气性能

ENR-6045 Series

Part Number	Inductance @100kHz,1V (μ H)	Tolerance ($\pm\%$)	RDC (Ω) $\pm 30\%$	Saturation current (I_{sat}) (A)MAX.	Heat Rating current (I_{rms}) (A)MAX.
ENR-6045-R47T	0.47	30	0.006	15.00	6.50
ENR-6045-R56T	0.56	30	0.006	15.00	6.50
ENR-6045-R68T	0.68	30	0.006	11.00	5.70
ENR-6045-R82T	0.82	30	0.008	10.35	5.60
ENR-6045-1R0T	1.0	30	0.011	9.85	5.14
ENR-6045-1R2T	1.2	30	0.011	8.35	5.40
ENR-6045-1R5T	1.5	30	0.012	8.80	4.95
ENR-6045-1R8T	1.8	30	0.012	7.60	4.95
ENR-6045-2R2T	2.2	30	0.014	6.75	4.60
ENR-6045-2R7T	2.7	30	0.015	5.75	4.30
ENR-6045-3R3M	3.3	20	0.021	5.90	3.70
ENR-6045-3R6M	3.6	20	0.021	5.25	3.60
ENR-6045-4R3M	4.3	20	0.023	4.45	3.50
ENR-6045-4R7M	4.7	20	0.026	4.97	3.30
ENR-6045-5R1M	5.1	20	0.026	4.40	3.20
ENR-6045-5R6M	5.6	20	0.029	4.15	3.15
ENR-6045-6R2M	6.2	20	0.031	4.43	3.00
ENR-6045-6R8M	6.8	20	0.031	3.90	3.00
ENR-6045-8R2M	8.2	20	0.043	3.90	2.60
ENR-6045-100M	10	20	0.048	3.20	2.45
ENR-6045-120M	12	20	0.058	2.80	2.20
ENR-6045-150M	15	20	0.068	2.50	2.05
ENR-6045-180M	18	20	0.081	2.20	1.85
ENR-6045-220M	22	20	0.089	2.05	1.80
ENR-6045-270M	27	20	0.102	1.90	1.65
ENR-6045-330M	33	20	0.137	1.65	1.45
ENR-6045-390M	39	20	0.180	1.50	1.25
ENR-6045-470M	47	20	0.200	1.40	1.20
ENR-6045-560M	56	20	0.221	1.30	1.10
ENR-6045-620M	62	20	0.235	1.25	1.10
ENR-6045-680M	68	20	0.289	1.20	1.00
ENR-6045-820M	82	20	0.341	1.05	0.90
ENR-6045-101M	100	20	0.433	0.95	0.80
ENR-6045-121M	120	20	0.484	0.85	0.77
ENR-6045-151M	150	20	0.580	0.80	0.70
ENR-6045-221M	220	20	0.834	0.70	0.59
ENR-6045-331M	330	20	1.270	0.57	0.57
ENR-6045-471M	470	20	1.800	0.50	0.42
ENR-6045-681M	680	20	2.500	0.42	0.33



SMD Power Inductor (ENR Series) 贴片功率电感 ENR 系列

Electrical Characteristics 电气性能

ENR-8040 Series

Part Number	Inductance @100kHz,1V (uH)	Tolerance (±%)	RDC (Ω) ±30%	Saturation current (Isat) (A)MAX.	Heat Rating current (Irms) (A)MAX.
ENR-8040-R82T	0.82	30	0.008	13.80	6.30
ENR-8040-1R0T	1.0	30	0.008	10.00	6.30
ENR-8040-1R2T	1.2	30	0.010	9.85	5.65
ENR-8040-1R5T	1.5	30	0.010	8.15	5.65
ENR-8040-2R0T	2.0	30	0.012	8.00	5.20
ENR-8040-2R2T	2.2	30	0.012	7.10	5.15
ENR-8040-3R0T	3.0	30	0.014	6.10	4.70
ENR-8040-3R3M	3.3	20	0.017	6.10	4.40
ENR-8040-3R6M	3.6	20	0.017	6.10	4.35
ENR-8040-3R9M	3.9	20	0.017	5.75	4.35
ENR-8040-4R7M	4.7	20	0.019	5.70	4.10
ENR-8040-5R1M	5.1	20	0.019	4.70	4.05
ENR-8040-5R6M	5.6	20	0.021	4.60	3.85
ENR-8040-6R2M	6.2	20	0.021	4.45	3.85
ENR-8040-6R8M	6.8	20	0.024	4.40	3.60
ENR-8040-8R2M	8.2	20	0.026	4.20	3.45
ENR-8040-100M	10	20	0.029	3.60	3.30
ENR-8040-120M	12	20	0.041	3.50	2.80
ENR-8040-150M	15	20	0.047	2.95	2.60
ENR-8040-180M	18	20	0.053	2.70	2.40
ENR-8040-220M	22	20	0.069	2.40	2.10
ENR-8040-270M	27	20	0.078	2.15	2.00
ENR-8040-330M	33	20	0.097	2.05	1.80
ENR-8040-390M	39	20	0.107	1.95	1.70
ENR-8040-430M	43	20	0.113	1.90	1.65
ENR-8040-470M	47	20	0.136	1.75	1.55
ENR-8040-560M	56	20	0.148	1.55	1.45
ENR-8040-620M	62	20	0.182	1.50	1.30
ENR-8040-680M	68	20	0.196	1.45	1.25
ENR-8040-820M	82	20	0.225	1.30	1.15
ENR-8040-101M	100	20	0.290	1.15	1.00
ENR-8040-121M	120	20	0.334	1.05	0.95
ENR-8040-151M	150	20	0.410	1.00	0.85
ENR-8040-181M	180	20	0.520	0.90	0.70
ENR-8040-221M	220	20	0.599	0.85	0.80
ENR-8040-331M	330	20	0.889	0.68	0.64
ENR-8040-471M	470	20	1.260	0.60	0.54
ENR-8040-681M	680	20	2.040	0.50	0.45
ENR-8040-102M	1000	20	2.800	0.40	0.35

Note 1. : All test data is referenced to 20°C ambient;

Note 2. : Rated current: Isat or Irms ,whichever is smaller;

Note 3. : Isat : DC current (A) that will cause L0 to drop approximately 30%;

Note 4. : Irms : DC current (A) that will cause an approximate ΔT of 40°C;

Note 5 : Operating Temperature Range -40°C to + 125°C;

