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SMTDR32P SERIES

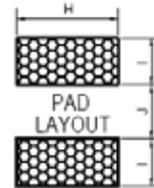
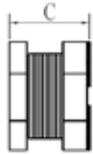
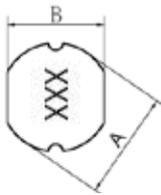
UNSHIELDED SMT POWER INDUCTORS

Applications :

- Power supply for VTRs.
- LCD televisions.
- Notebook PCs.
- Portable communication equipment.
- DC/DC converters, etc.



Shape and Dimensions (Dimensions are in mm) :



Item	A	B	C
SMTDR32P	3.5±0.3	3.0±0.3	2.0±0.3

Item	H	I	J
SMTDR32P	3.5	1.6	0.8

Features :

- Silver Plated Type, Low cost designed.
- High power, High saturation inductors.
- Ideal inductors for DC-DC conversion.
- Available on tape and reel for auto surface mounting.

Characteristics :

- Rated Current: It is either the inductance is 10% lower than its initial value in DC. saturation characteristics or temperature raise becomes $\Delta T=40^{\circ}\text{C}$ ($T_a=20^{\circ}\text{C}$), whichever is lower.
- Operating temperature : -30°C to 105°C .

Product identification :

SMT DR32 P - 1R0 K

(1) (2) (3) (4) (5)

- (1) Type : Surface Mountable Type .
- (2) Style : DR Core : OD=3.5mm, HT=2.0mm.
- (3) P: Parallel
- (4) Inductance : 1R0 for 1 uH.
- (5) Inductance tolerance : "N": ±30%; "M": ±20%

Test equipments :

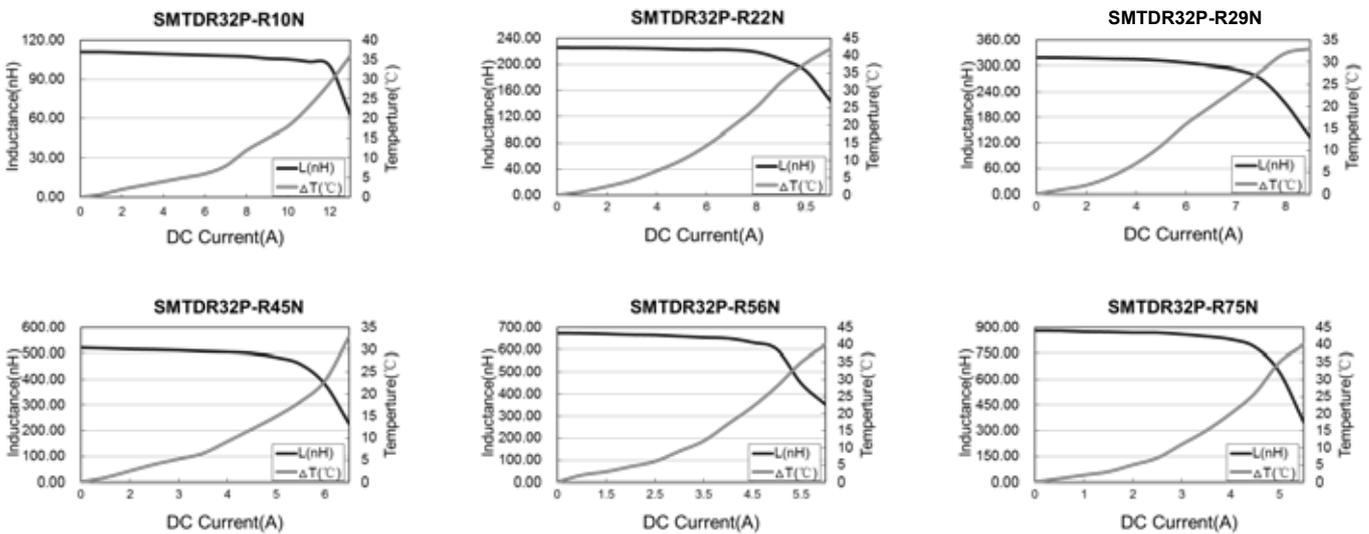
- Inductance measured at 0Adc on HP 4284A LCR meter or equivalent.
- DCR measured on Chroma 16502 micro-ohmmeter or equivalent.
- Electrical specifications at 25°C .


● SMTDR32P series

Part No.	Inductance L (uH)	Test Freq. (0.1V)	DCR m(Ω) Max.	Rated Current (A) Max.
SMTDR32P-R10□	0.1	7.96MHZ	6.2	8.0
SMTDR32P-R22□	0.22	7.96MHZ	10.0	7.0
SMTDR32P-R29□	0.29	7.96MHZ	18.0	5.0
SMTDR32P-R45□	0.45	7.96MHZ	24.5	3.9
SMTDR32P-R56□	0.56	7.96MHZ	30.0	3.6
SMTDR32P-R75□	0.75	7.96MHZ	36.0	3.3
SMTDR32P-1R0□	1.0	7.96MHZ	43.0	3.0
SMTDR32P-1R2□	1.2	7.96MHZ	47.0	2.6
SMTDR32P-1R5□	1.5	7.96MHZ	55.0	2.4
SMTDR32P-2R2□	2.2	7.96MHZ	75.0	2.0
SMTDR32P-3R0□	3.0	7.96MHZ	91.0	1.8
SMTDR32P-3R9□	3.9	7.96MHZ	120.0	1.6
SMTDR32P-4R7□	4.7	7.96MHZ	160.0	1.5
SMTDR32P-5R6□	5.6	7.96MHZ	180.0	1.4

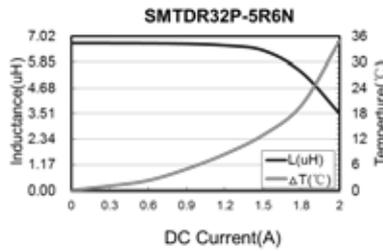
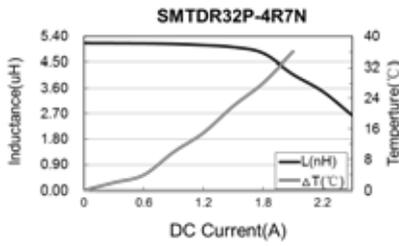
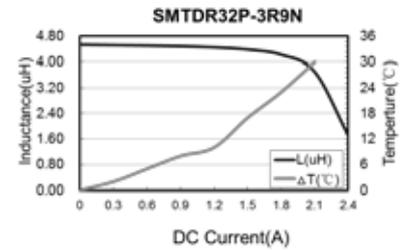
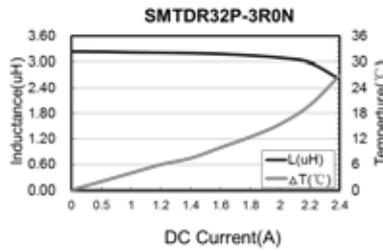
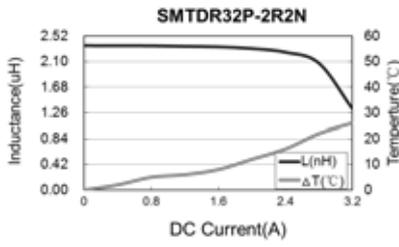
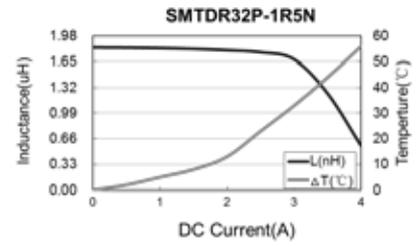
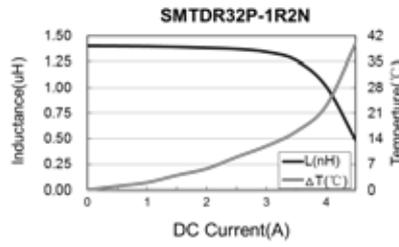
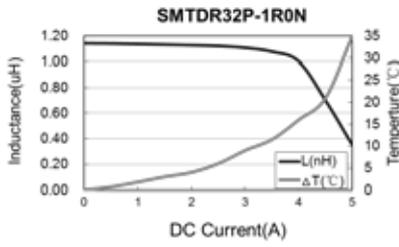
Tolerance of Inductance :

SMTDR32P 0.1~5.6uH (M) +-20%;(N)+-30%

Typical performance curves:




Typical performance curves:



* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others), kindly invite you to access 3L official website www.3lcoil.com for better known.



SMTDR SERIES

UNSHIELDED SMT POWER INDUCTORS

Applications :

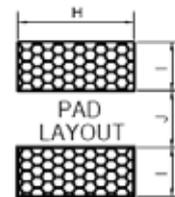
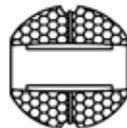
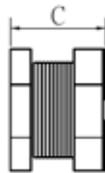
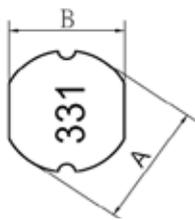
- Power supply for VTRs. LCD televisions.
- Notebook PCs, Portable communication equipment
- DC/DC converters ,etc



Features :

- Silver Plated Type, Low cost designed
- Available on tape and reel for auto surface mounting.

Shape and Dimensions (Dimensions are in mm) :



Item	A	B	C
SMTDR32	3.5±0.3	3.0±0.3	2.0±0.3
SMTDR43	4.5±0.3	4.0±0.3	3.2±0.3
SMTDR53	5.8±0.3	5.2±0.3	3.0±0.3
SMTDR54	5.8±0.3	5.2±0.3	4.5±0.35
SMTDR75	7.8±0.3	7.0±0.3	5.0±0.5
SMTDR105	10.0±0.3	9.0±0.3	5.4±0.4
SMTDR107	10.0±0.3	9.0±0.3	7.5 Max.

Item	H	I	J
SMTDR32	3.5	1.6	0.8
SMTDR43	4.5	1.75	1.5
SMTDR53	5.5	2.15	1.7
SMTDR54	5.5	2.15	1.7
SMTDR75	7.5	3.0	2.0
SMTDR105	9.5	3.75	2.5
SMTDR107	9.5	3.75	2.5

Characteristics :

- Saturation Current(Isat):The current when the inductance becomes 10% lower than its initial value.(Ta=20°C).
- Temperature Rise Current(Irms):The current when the temperature of coil increases up to max. Δ T=40°C.(Ta=20°C)
- Operating temperature : -30°C to 105°C.

Product Identification :

SMT DR105 - 331 K

(1) (2) (3) (4)

(1)Type : **Surface Mountable Type** .

(2)Style : **DR** Core : **OD**=10mm, **HT**=5.4mm.

(3)Inductance : **331** for **330** uH.

(4)Inductance tolerance : "**M**": ±20%; "**L**": ±15%; "**K**": ±10%

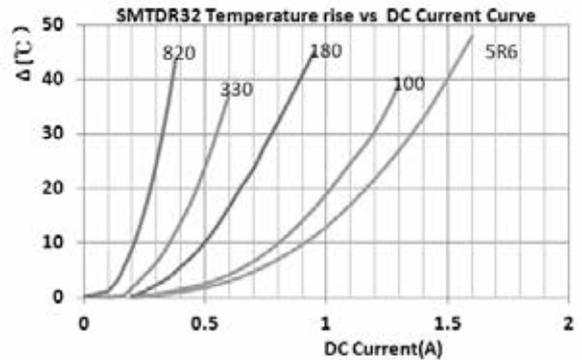
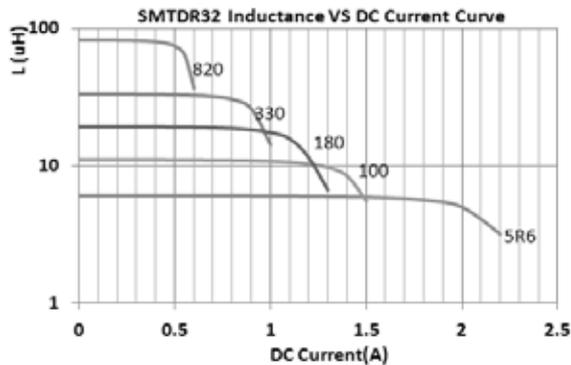
Measuring Frequency :

- SMTDR32/43/52/53/54
1.0~8.2uH@ 7.96MHz 0.25V ; 10~82uH@ 2.52MHz 0.25V
100~470uH@ 1kHz 0.25V
- SMTDR73/75/104/105
10~82uH@ 2.52MHz 0.25V ; 100~820uH @ 1kHz 0.25V

- SMTDR107
10~82uH@ 2.52MHz 0.25V ; 100~820uH@ 1kHz 0.25V
- SMTDR137
1.5~1000uH@ 100KHZ 0.1V

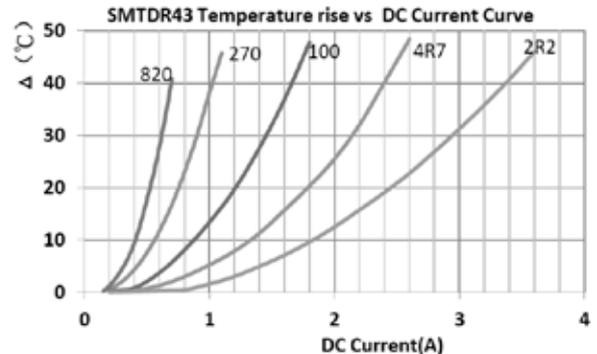
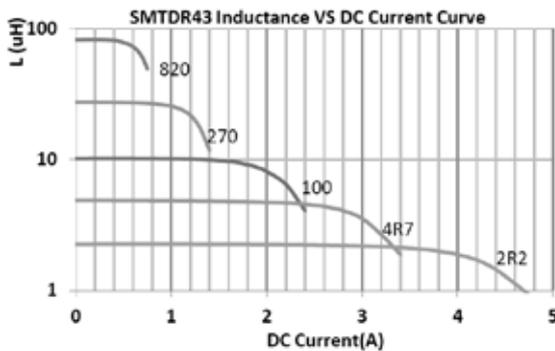

● SMTDR32 series

Part NO.	L(uH)	DCR(Ω)		I sat (A)		I rms (A)	
		Max.	Typ.	Max.	Typ.	Max.	Typ.
SMTDR32-1R0M	1.0	45m	30m	3.30	4.10	2.60	3.10
SMTDR32-1R2M	1.2	50m	32m	3.00	3.70	2.50	3.00
SMTDR32-1R5M	1.5	55m	44m	2.70	3.40	2.15	2.60
SMTDR32-1R8M	1.8	70m	49m	2.50	3.20	2.00	2.50
SMTDR32-2R2M	2.2	85m	59m	2.30	2.80	1.80	2.20
SMTDR32-2R7M	2.7	100m	65m	2.20	2.70	1.55	1.90
SMTDR32-3R3M	3.3	120m	96m	1.95	2.40	1.45	1.80
SMTDR32-3R9M	3.9	125m	110m	1.85	2.30	1.40	1.60
SMTDR32-4R7M	4.7	135m	120m	1.60	2.00	1.30	1.50
SMTDR32-5R6M	5.6	165m	140m	1.55	1.90	1.25	1.40
SMTDR32-6R8M	6.8	0.20	0.17	1.40	1.75	1.20	1.38
SMTDR32-8R2M	8.2	0.25	0.19	1.20	1.45	1.15	1.35
SMTDR32-100M	10	0.32	0.24	1.05	1.30	1.10	1.30
SMTDR32-120M	12	0.35	0.27	1.00	1.25	0.90	1.05
SMTDR32-150M	15	0.46	0.37	0.90	1.15	0.75	0.90
SMTDR32-180M	18	0.52	0.40	0.80	1.00	0.70	0.85
SMTDR32-220K	22	0.65	0.57	0.75	0.95	0.56	0.66
SMTDR32-270K	27	0.75	0.66	0.70	0.85	0.53	0.63
SMTDR32-330K	33	0.92	0.76	0.60	0.75	0.52	0.62
SMTDR32-390K	39	1.12	0.97	0.55	0.72	0.43	0.52
SMTDR32-470K	47	1.27	1.10	0.50	0.65	0.40	0.47
SMTDR32-560K	56	1.50	1.30	0.45	0.58	0.35	0.43
SMTDR32-680K	68	2.00	1.52	0.40	0.50	0.33	0.40
SMTDR32-820K	82	2.15	1.83	0.35	0.47	0.30	0.37
SMTDR32-101K	100	2.80	2.46	0.34	0.42	0.28	0.33
SMTDR32-121K	120	3.40	2.74	0.33	0.41	0.26	0.31
SMTDR32-151K	150	4.20	3.12	0.28	0.35	0.23	0.28
SMTDR32-181K	180	4.50	3.58	0.27	0.34	0.21	0.25
SMTDR32-221K	220	5.70	5.05	0.25	0.31	0.19	0.23
SMTDR32-271K	270	8.50	5.92	0.22	0.27	0.17	0.20
SMTDR32-331K	330	9.50	6.96	0.19	0.24	0.15	0.18

Typical Performance curves:


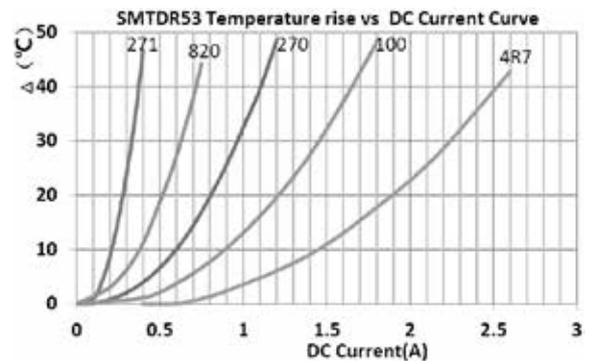
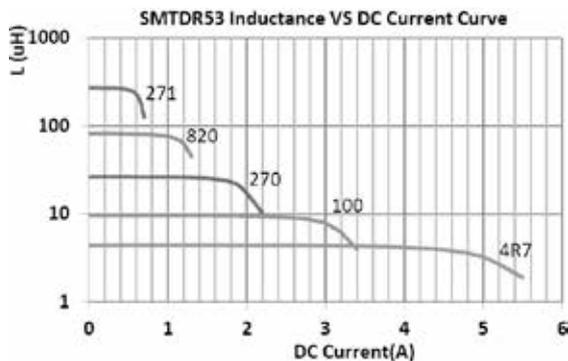

● SMTDR43 series

Part NO.	L(uH)	DCR(Ω)		I sat (A)		I rms (A)	
		Max.	Typ.	Max.	Typ.	Max.	Typ.
SMTDR43-1R0M	1.0	26m	17m	3.85	4.80	3.40	4.20
SMTDR43-1R4M	1.4	35m	23m	3.44	4.30	3.00	3.70
SMTDR43-2R2M	2.2	42m	28m	2.80	3.50	2.75	3.40
SMTDR43-2R7M	2.7	48m	32m	2.75	3.45	2.45	3.15
SMTDR43-3R3M	3.3	60m	40m	2.48	3.10	2.35	2.85
SMTDR43-3R9M	3.9	65m	43m	2.32	2.90	2.00	2.60
SMTDR43-4R7M	4.7	76m	56m	2.00	2.50	1.98	2.40
SMTDR43-5R6M	5.6	103m	76m	1.96	2.45	1.80	2.20
SMTDR43-6R8M	6.8	119m	88m	1.60	2.00	1.62	2.00
SMTDR43-8R2M	8.2	134m	99m	1.52	1.90	1.42	1.82
SMTDR43-100M	10	0.14	0.11	1.44	1.80	1.38	1.62
SMTDR43-120M	12	0.19	0.15	1.24	1.55	1.30	1.50
SMTDR43-150M	15	0.21	0.17	1.12	1.40	1.18	1.42
SMTDR43-180M	18	0.27	0.22	1.00	1.25	1.05	1.30
SMTDR43-220M	22	0.31	0.25	0.96	1.20	0.98	1.20
SMTDR43-270M	27	0.36	0.29	0.84	1.05	0.85	1.05
SMTDR43-330K	33	0.42	0.34	0.76	0.95	0.82	1.00
SMTDR43-390K	39	0.48	0.39	0.74	0.92	0.78	0.92
SMTDR43-470K	47	0.56	0.45	0.68	0.85	0.74	0.90
SMTDR43-560K	56	0.81	0.65	0.63	0.78	0.65	0.80
SMTDR43-680K	68	0.92	0.74	0.50	0.62	0.58	0.70
SMTDR43-820K	82	1.06	0.85	0.46	0.58	0.55	0.65
SMTDR43-101K	100	1.18	0.95	0.45	0.57	0.52	0.62
SMTDR43-121K	120	1.31	1.05	0.44	0.56	0.46	0.56
SMTDR43-151K	150	1.97	1.58	0.37	0.46	0.38	0.47
SMTDR43-181K	180	2.55	2.04	0.30	0.38	0.33	0.42
SMTDR43-221K	220	2.90	2.32	0.29	0.37	0.32	0.39
SMTDR43-271K	270	3.31	2.65	0.27	0.34	0.30	0.37
SMTDR43-331K	330	6.92	5.54	0.24	0.30	0.20	0.24

Typical Performance curves:


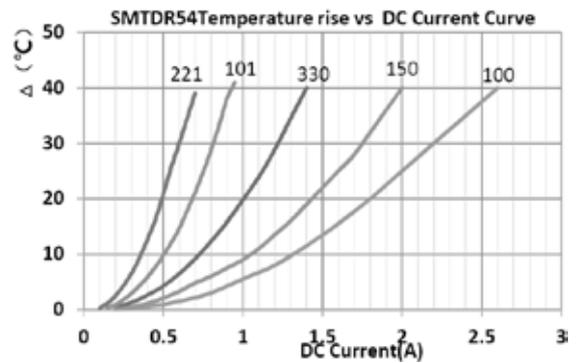
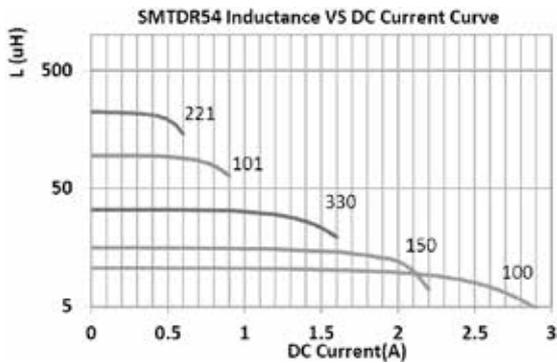

● SMTDR53 series

Part NO.	L(uH)	DCR(Ω)		I sat (A)		I rms (A)	
		Max.	Typ.	Max.	Typ.	Max.	Typ.
SMTDR53-1R0M	1.0	18m	13m	6.70	8.40	5.10	6.50
SMTDR53-1R2M	1.2	22m	16m	6.00	7.50	4.10	5.40
SMTDR53-1R5M	1.5	26m	19m	5.60	7.00	4.05	5.10
SMTDR53-1R8M	1.8	28m	21m	5.60	7.00	4.00	5.00
SMTDR53-2R2M	2.2	30m	26m	4.40	5.50	3.70	4.70
SMTDR53-2R7M	2.7	40m	31m	4.25	5.30	3.30	4.20
SMTDR53-3R3M	3.3	50m	35m	4.00	5.00	3.10	3.90
SMTDR53-3R9M	3.9	60m	38m	3.60	4.50	3.00	3.70
SMTDR53-4R7M	4.7	70m	51m	3.15	4.20	2.15	2.50
SMTDR53-5R6M	5.6	80m	60m	2.88	3.60	2.05	2.45
SMTDR53-6R8M	6.8	90m	65m	2.75	3.40	1.98	2.38
SMTDR53-8R2M	8.2	100m	70m	2.65	3.30	1.58	1.90
SMTDR53-100M	10	0.13	0.10	2.15	2.70	1.38	1.65
SMTDR53-120M	12	0.16	0.12	2.00	2.50	1.30	1.62
SMTDR53-150M	15	0.19	0.15	1.85	2.30	1.20	1.50
SMTDR53-180M	18	0.21	0.17	1.68	2.10	1.17	1.40
SMTDR53-220K	22	0.28	0.19	1.45	1.80	1.05	1.30
SMTDR53-270K	27	0.32	0.24	1.35	1.70	0.90	1.10
SMTDR53-330K	33	0.38	0.28	1.20	1.50	0.88	1.08
SMTDR53-390K	39	0.42	0.32	1.10	1.40	0.80	1.00
SMTDR53-470K	47	0.52	0.40	1.05	1.35	0.75	0.90
SMTDR53-560K	56	0.56	0.47	0.95	1.20	0.70	0.88
SMTDR53-680K	68	0.68	0.56	0.88	1.10	0.69	0.85
SMTDR53-820K	82	0.82	0.64	0.80	1.00	0.57	0.72
SMTDR53-101K	100	1.10	0.88	0.75	0.95	0.46	0.65
SMTDR53-121K	120	1.20	1.02	0.68	0.85	0.48	0.59
SMTDR53-151K	150	1.50	1.34	0.64	0.80	0.43	0.53
SMTDR53-181K	180	1.80	1.45	0.56	0.70	0.42	0.50
SMTDR53-221K	220	2.00	1.64	0.48	0.60	0.36	0.44
SMTDR53-271K	270	2.90	2.32	0.44	0.55	0.31	0.38
SMTDR53-331K	330	3.30	2.67	0.40	0.50	0.28	0.34
SMTDR53-391K	390	3.70	3.01	0.38	0.48	0.26	0.32
SMTDR53-471K	470	4.90	3.74	0.36	0.45	0.24	0.28

Typical Performance curves:


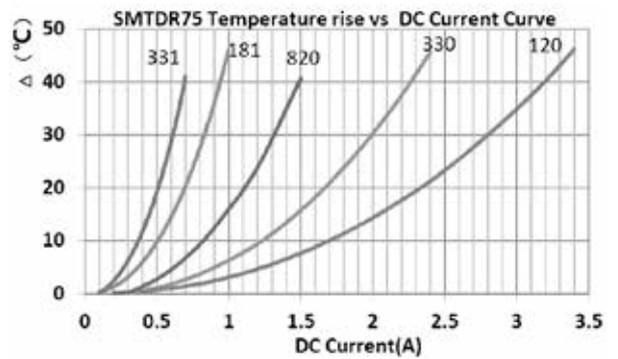
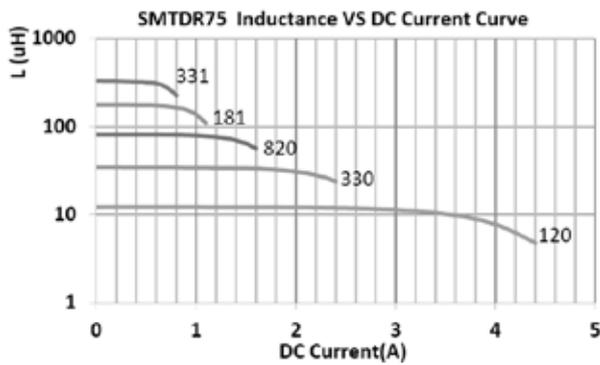

● SMTDR54 series

Part NO.	L(uH)	DCR(Ω)		I sat (A)		I rms (A)	
		Max.	Typ.	Max.	Typ.	Max.	Typ.
SMTDR54-100M	10	100m	60m	1.60	2.00	2.00	2.60
SMTDR54-120M	12	120m	69m	1.44	1.80	1.80	2.20
SMTDR54-150M	15	140m	81m	1.28	1.60	1.60	2.00
SMTDR54-180M	18	150m	90m	1.16	1.45	1.56	1.90
SMTDR54-220M	22	0.18	0.11	1.12	1.40	1.37	1.70
SMTDR54-270M	27	0.20	0.13	1.04	1.30	1.20	1.50
SMTDR54-330K	33	0.23	0.15	0.96	1.20	1.15	1.40
SMTDR54-390K	39	0.32	0.21	0.85	1.05	1.10	1.35
SMTDR54-470K	47	0.37	0.24	0.80	1.00	1.05	1.30
SMTDR54-560K	56	0.42	0.27	0.72	0.90	0.95	1.20
SMTDR54-680K	68	0.46	0.31	0.68	0.85	0.90	1.10
SMTDR54-820K	82	0.60	0.40	0.64	0.80	0.80	1.00
SMTDR54-101K	100	0.70	0.45	0.56	0.70	0.75	0.90
SMTDR54-121K	120	0.93	0.52	0.52	0.65	0.70	0.85
SMTDR54-151K	150	1.10	0.75	0.44	0.55	0.62	0.80
SMTDR54-181K	180	1.38	0.90	0.40	0.50	0.58	0.75
SMTDR54-221K	220	1.57	1.05	0.36	0.45	0.55	0.70
SMTDR54-271K	270	1.65	1.25	0.33	0.41	0.50	0.65
SMTDR54-331K	330	1.80	1.43	0.30	0.38	0.45	0.60

Typical Performance curves:


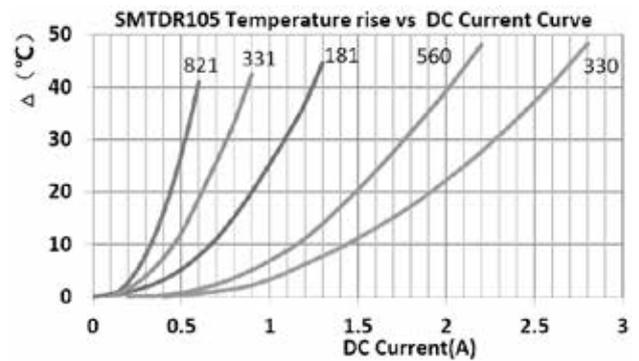
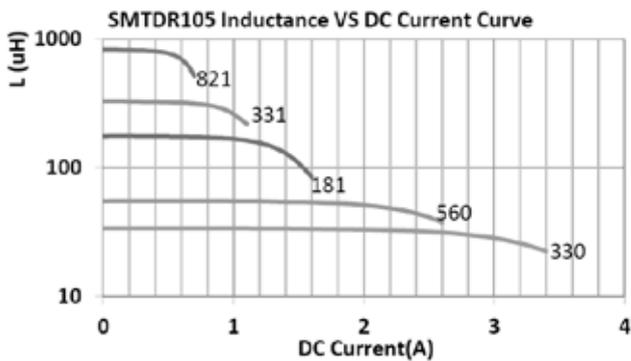

● SMTDR75 series

Part NO.	L(uH)	DCR(Ω)		I sat (A)		I rms (A)	
		Max.	Typ.	Max.	Typ.	Max.	Typ.
SMTDR75-100K	10	70m	33m	2.88	3.60	3.20	3.80
SMTDR75-120K	12	80m	46m	2.56	3.20	2.60	3.20
SMTDR75-150K	15	90m	53m	2.25	2.80	2.55	3.10
SMTDR75-180K	18	100m	59m	2.08	2.60	2.25	2.80
SMTDR75-220K	22	110m	70m	1.95	2.40	2.10	2.60
SMTDR75-270K	27	120m	87m	1.75	2.20	1.98	2.40
SMTDR75-330K	33	0.13	0.10	1.52	1.90	1.82	2.25
SMTDR75-390K	39	0.16	0.12	1.44	1.80	1.62	2.00
SMTDR75-470K	47	0.18	0.14	1.28	1.60	1.50	1.90
SMTDR75-560K	56	0.24	0.17	1.20	1.50	1.43	1.80
SMTDR75-680K	68	0.28	0.20	1.12	1.40	1.30	1.60
SMTDR75-820K	82	0.37	0.23	1.04	1.30	1.23	1.50
SMTDR75-101K	100	0.43	0.28	0.92	1.15	1.08	1.32
SMTDR75-121K	120	0.47	0.35	0.80	1.00	0.99	1.20
SMTDR75-151K	150	0.64	0.40	0.72	0.90	0.90	1.10
SMTDR75-181K	180	0.71	0.53	0.68	0.85	0.76	0.94
SMTDR75-221K	220	0.96	0.61	0.64	0.80	0.70	0.85
SMTDR75-271K	270	1.11	0.72	0.56	0.70	0.65	0.80
SMTDR75-331K	330	1.26	0.95	0.52	0.65	0.58	0.70
SMTDR75-391K	390	1.77	1.28	0.44	0.55	0.49	0.60
SMTDR75-471K	470	1.96	1.46	0.40	0.50	0.47	0.58

Typical Performance curves:


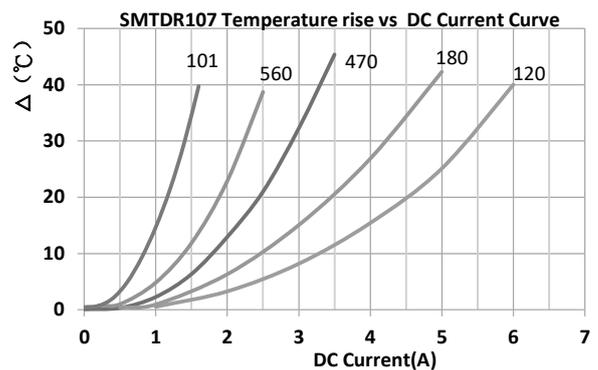
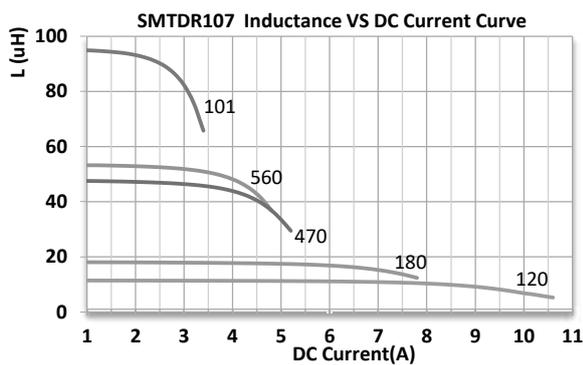

● SMTDR105 series

Part NO.	L(μ H)	DCR(Ω)		I sat (A)		I rms (A)	
		Max.	Typ.	Max.	Typ.	Max.	Typ.
SMTDR105-100M	10	60m	26m	4.00	5.00	4.00	4.50
SMTDR105-120M	12	70m	31m	3.50	4.40	3.50	4.25
SMTDR105-150M	15	80m	36m	3.05	3.80	2.70	3.48
SMTDR105-180M	18	90m	46m	2.90	3.60	2.40	3.10
SMTDR105-220M	22	100m	52m	2.55	3.20	2.38	2.95
SMTDR105-270M	27	110m	62m	2.25	2.80	2.25	2.80
SMTDR105-330M	33	120m	74m	2.10	2.60	2.15	2.60
SMTDR105-390M	39	140m	93m	2.00	2.50	2.00	2.40
SMTDR105-470K	47	0.17	0.10	1.95	2.40	1.80	2.20
SMTDR105-560K	56	0.19	0.12	1.70	2.10	1.62	2.02
SMTDR105-680K	68	0.22	0.15	1.50	1.90	1.58	1.97
SMTDR105-820K	82	0.25	0.18	1.35	1.70	1.30	1.60
SMTDR105-101K	100	0.35	0.21	1.20	1.50	1.28	1.58
SMTDR105-121K	120	0.40	0.24	1.15	1.40	1.15	1.45
SMTDR105-151K	150	0.47	0.30	1.05	1.30	1.10	1.39
SMTDR105-181K	180	0.63	0.36	0.88	1.10	1.00	1.25
SMTDR105-221K	220	0.73	0.45	0.85	1.05	0.96	1.18
SMTDR105-271K	270	0.97	0.56	0.80	1.00	0.82	1.00
SMTDR105-331K	330	1.15	0.65	0.76	0.95	0.70	0.89
SMTDR105-391K	390	1.30	0.75	0.65	0.80	0.65	0.80
SMTDR105-471K	470	1.48	0.93	0.56	0.70	0.62	0.78
SMTDR105-561K	560	1.90	1.10	0.52	0.65	0.60	0.74
SMTDR105-681K	680	2.25	1.30	0.48	0.60	0.54	0.65
SMTDR105-821K	820	2.55	1.65	0.44	0.55	0.49	0.60

Typical Performance curves:



● SMTDR107 series

Part NO.	L(μ H)	DCR(Ω)		I sat (A)		I rms (A)	
		Max.	Typ.	Max.	Typ.	Max.	Typ.
SMTDR107-100M	10	34m	26m	7.31	8.60	5.20	6.10
SMTDR107-120M	12	37m	27m	6.80	8.00	5.00	6.00
SMTDR107-150M	15	46m	37m	6.12	7.20	4.30	5.10
SMTDR107-180M	18	52m	41m	5.44	6.40	3.90	4.80
SMTDR107-220M	22	66m	48m	5.10	6.00	3.80	4.70
SMTDR107-270M	27	78m	63m	4.76	5.60	3.25	4.05
SMTDR107-330M	33	89m	71m	4.25	5.00	3.10	3.90
SMTDR107-390M	39	116m	92m	3.91	4.60	2.70	3.30
SMTDR107-470M	47	0.12	0.10	3.57	4.20	2.60	3.25
SMTDR107-560M	56	0.15	0.12	3.40	4.00	2.05	2.50
SMTDR107-680M	68	0.18	0.15	3.06	3.60	1.98	2.40
SMTDR107-820M	82	0.21	0.17	2.72	3.20	1.60	2.00
SMTDR107-101K	100	0.27	0.22	2.47	2.90	1.50	1.80
SMTDR107-121K	120	0.29	0.25	2.30	2.70	1.40	1.60
SMTDR107-151K	150	0.38	0.31	1.96	2.30	1.30	1.50
SMTDR107-181K	180	0.43	0.35	1.87	2.20	1.18	1.45
SMTDR107-221K	220	0.54	0.44	1.70	2.00	0.98	1.20
SMTDR107-271K	270	0.62	0.50	1.53	1.80	0.90	1.10
SMTDR107-331K	330	0.81	0.68	1.28	1.50	0.78	0.95
SMTDR107-391K	390	0.90	0.76	1.19	1.40	0.75	0.92
SMTDR107-471K	471	1.00	0.86	1.08	1.35	0.70	0.85
SMTDR107-561K	560	1.29	1.06	1.02	1.20	0.65	0.78
SMTDR107-681K	680	1.66	1.40	0.94	1.10	0.53	0.65
SMTDR107-821K	820	1.92	1.60	0.77	0.90	0.50	0.62

Typical Performance curves:


* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others), kindly invite you to access 3L official website www.3lcoil.com for better known.