

# SM042---135T Series

## FEATURES

- Ultra low cost,
- ieled construction
- High current rating up to DC 65Amp
- High frequency range uo to 5MHz
- Very low DC resistance
- Low Noise
- RoHS compliant

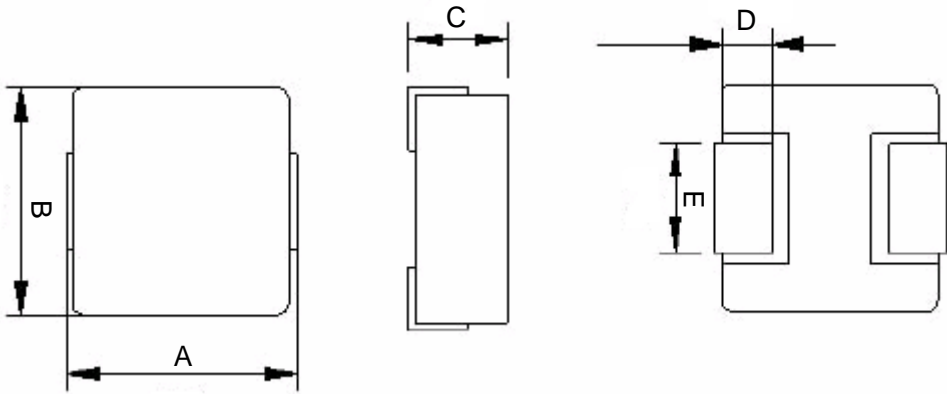
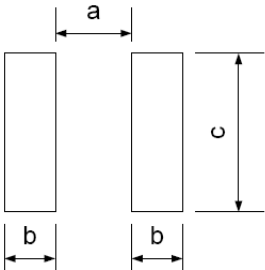
## APPLICATIONS

- Mainly used by PDA/Notebook/Desktop/Server applications
- DC/DC converter

Operating temperature range: -25℃~+120℃ (Including seif-heating)

## SHAPE AND DIMENSIONS

## Recommended Land Pattern



Unit:mm

Series	A	B	C	D	E	a Typ.	b Typ.	c Typ.
SM042	5.0±0.2	4.4±0.2	2.1±0.2	0.8	1.5	2.20	1.50	2.50
SM062T	7.5±0.2	6.8±0.2	2.4±0.2	1.6	3.0	3.70	2.35	3.50
SM063T	7.5±0.2	6.8±0.2	3.0±0.2	1.6	3.0	3.70	2.35	3.50
SM104T	11.5±0.2	10.4±0.2	4.0±0.2	2.2	3.0	5.40	4.10	4.10
SM134T	13.8±0.2	13.0±0.2	3.5±0.2	2.2	3.0	8.00	3.25	3.50
SM135T	13.8±0.2	13.0±0.2	5.0±0.2	2.2	3.0	8.00	3.25	3.50

## Electrical Characteristics

SM042 Series

Part Number	Inductance	Test Conditions	DC Resistance Max.	Saturation Current	Heat Rating Current
Unit	uH	-	m OHM	A	A
Symbol	L	-	DCR	Isat	Irms
SM042-R10M-R-S	0.10 ± 20%	100KHz,0.1V	4.0	22.0	12.0
SM042-R22M-R-S	0.22 ± 20%	100KHz,0.1V	6.6	12.5	9.0
SM042-R47M-R-S	0.47 ± 20%	100KHz,0.1V	14.0	9.5	7.0
SM042-R56M-R-S	0.56 ± 20%	100KHz,0.1V	14.5	9.0	6.0
SM042-1R0M-R-S	1.0 ± 20%	100KHz,0.1V	27.0	7.0	4.5
SM042-1R5M-R-S	1.5 ± 20%	100KHz,0.1V	46.0	6.0	4.0
SM042-2R2M-R-S	2.2 ± 20%	100KHz,0.1V	58.0	5.0	3.0
SM042-3R3M-R-S	3.3 ± 20%	100KHz,0.1V	87.0	4.0	2.5

SM062T Series

Part Number	Inductance	Test Conditions	DC Resistance Max.	Saturation Current	Heat Rating Current
Unit	uH	-	m OHM	A	A
Symbol	L	-	DCR	Isat	Irms
SM062T-R10M-R-S	0.10 ± 20%	100KHz,0.1V	1.7	70.0	30.0
SM062T-R20M-R-S	0.20 ± 20%	100KHz,0.1V	2.8	50.0	25.0
SM062T-R22M-R-S	0.22 ± 20%	100KHz,0.1V	3.2	34.0	21.0
SM062T-R47M-R-S	0.47 ± 20%	100KHz,0.1V	5.5	22.0	15.0
SM062T-R56M-R-S	0.56 ± 20%	100KHz,0.1V	6.5	20.0	13.0
SM062T-R81M-R-S	0.81 ± 20%	100KHz,0.1V	9.5	14.0	11.0
SM062T-1R0M-R-S	1.0 ± 20%	100KHz,0.1V	13.5	16.0	9.0
SM062T-1R5M-R-S	1.5 ± 20%	100KHz,0.1V	20.0	15.0	9.0
SM062T-2R2M-R-S	2.2 ± 20%	100KHz,0.1V	28.0	14.0	7.0
SM062T-3R3M-R-S	3.3 ± 20%	100KHz,0.1V	39.0	13.0	5.5
SM062T-4R7M-R-S	4.7 ± 20%	100KHz,0.1V	50.0	10.0	5.0
SM062T-6R8M-R-S	6.8 ± 20%	100KHz,0.1V	70.0	6.0	4.0

SM063T Series

Part Number	Inductance	Test Conditions	DC Resistance Max.	Saturation Current	Heat Rating Current
Unit	uH	-	m OHM	A	A
Symbol	L	-	DCR	Isat	Irms
SM063T-R10M-R-S	0.10 ± 20%	100KHz,0.1V	1.70	60.0	32.5
SM063T-R15M-R-S	0.15 ± 20%	100KHz,0.1V	2.50	45.0	30.0
SM063T-R20M-R-S	0.20 ± 20%	100KHz,0.1V	3.00	41.0	24.0
SM063T-R22M-R-S	0.22 ± 20%	100KHz,0.1V	2.80	40.0	23.0
SM063T-R33M-R-S	0.33 ± 20%	100KHz,0.1V	3.90	30.0	20.0
SM063T-R36M-R-S	0.36 ± 20%	100KHz,0.1V	3.90	26.0	20.0
SM063T-R47M-R-S	0.47 ± 20%	100KHz,0.1V	4.20	26.0	17.5
SM063T-R56M-R-S	0.56 ± 20%	100KHz,0.1V	5.00	25.5	16.5
SM063T-R68M-R-S	0.68 ± 20%	100KHz,0.1V	5.50	25.0	15.5
SM063T-R82M-R-S	0.82 ± 20%	100KHz,0.1V	8.00	24.0	13.0
SM063T-1R0M-R-S	1.0 ± 20%	100KHz,0.1V	10.0	22.0	11.0
SM063T-1R5M-R-S	1.5 ± 20%	100KHz,0.1V	15.0	18.0	9.0
SM063T-2R2M-R-S	2.2 ± 20%	100KHz,0.1V	20.0	14.0	8.0

SM063T-2R5M-R-S	2.5±20%	100KHz,0.1V	22.0	14.0	7.0
SM063T-3R3M-R-S	3.3±20%	100KHz,0.1V	30.0	13.4	6.0
SM063T-4R7M-R-S	4.7±20%	100KHz,0.1V	40.0	10.0	5.5
SM063T-5R6M-R-S	5.6±20%	100KHz,0.1V	42.0	9.0	5.5
SM063T-6R8M-R-S	6.8±20%	100KHz,0.1V	60.0	8.0	4.5
SM063T-7R5M-R-S	7.5±20%	100KHz,0.1V	60.0	7.8	4.2
SM063T-8R2M-R-S	8.2±20%	100KHz,0.1V	68.0	7.5	4.0
SM063T-100M-R-S	10±20%	100KHz,0.1V	105.0	7.0	3.0

SM104T Series

Part Number	Inductance	Test Conditions	DC Resistance Max.	Saturation Current	Heat Rating Current
Unit	uH	-	m OHM	A	A
Symbol	L	-	DCR	Isat	Irms
SM104T-R14M-R-S	0.14±20%	100KHz,0.1V	1.50	55.0	35.0
SM104T-R22M-R-S	0.22±20%	100KHz,0.1V	1.50	50.0	32.0
SM104T-R36M-R-S	0.36±20%	100KHz,0.1V	1.70	50.0	31.5
SM104T-R47M-R-S	0.47±20%	100KHz,0.1V	1.90	49.0	27.5
SM104T-R56M-R-S	0.56±20%	100KHz,0.1V	2.30	49.0	27.5
SM104T-R68M-R-S	0.68±20%	100KHz,0.1V	2.50	40.0	23.0
SM104T-R88M-R-S	0.88±20%	100KHz,0.1V	3.00	38.0	20.0
SM104T-1R0M-R-S	1.0±20%	100KHz,0.1V	4.10	36.0	17.5
SM104T-1R5M-R-S	1.5±20%	100KHz,0.1V	6.00	27.5	15.0
SM104T-1R8M-R-S	1.8±20%	100KHz,0.1V	8.20	27.5	15.0
SM104T-2R2M-R-S	2.2±20%	100KHz,0.1V	9.00	25.6	12.0
SM104T-3R3M-R-S	3.3±20%	100KHz,0.1V	11.80	18.6	10.0
SM104T-4R7M-R-S	4.7±20%	100KHz,0.1V	16.50	17.0	9.5
SM104T-5R6M-R-S	5.6±20%	100KHz,0.1V	19.30	16.0	8.5
SM104T-6R8M-R-S	6.8±20%	100KHz,0.1V	25.00	14.0	8.0
SM104T-8R2M-R-S	8.2±20%	100KHz,0.1V	23.30	13.5	8.0
SM104T-100M-R-S	10±20%	100KHz,0.1V	36.50	12.0	6.8
SM104T-150M-R-S	15±20%	100KHz,0.1V	65.00	7.0	3.5
SM104T-220M-R-S	22±20%	100KHz,0.1V	120.00	3.0	2.0
SM104T-330M-R-S	33±20%	100KHz,0.1V	200.00	2.8	1.8
SM104T-470M-R-S	47±20%	100KHz,0.1V	210.00	3.0	1.2

SM134T Series

Part Number	Inductance	Test Conditions	DC Resistance Max.	Saturation Current	Heat Rating Current
Unit	uH	-	m OHM	A	A
Symbol	L	-	DCR	Isat	Irms
SM134T-R47M-R-S	0.47±20%	100KHz,0.1V	2.00	55.0	32.0
SM134T-R60M-R-S	0.60±20%	100KHz,0.1V	2.20	51.0	29.0
SM134T-R68M-R-S	0.68±20%	100KHz,0.1V	2.50	49.0	28.0
SM134T-R82M-R-S	0.82±20%	100KHz,0.1V	3.00	44.0	25.0
SM134T-1R0M-R-S	1.0±20%	100KHz,0.1V	3.50	40.0	24.0
SM134T-1R5M-R-S	1.5±20%	100KHz,0.1V	5.50	35.0	19.0
SM134T-1R8M-R-S	1.8±20%	100KHz,0.1V	7.00	30.0	16.5
SM134T-2R2M-R-S	2.2±20%	100KHz,0.1V	8.00	29.0	16.0
SM134T-3R3M-R-S	3.3±20%	100KHz,0.1V	12.00	27.0	12.0

SM134T-4R7M-R-S	4.7±20%	100KHz,0.1V	15.00	24.0	10.0
SM134T-5R6M-R-S	5.6±20%	100KHz,0.1V	19.00	19.0	9.5
SM134T-6R8M-R-S	6.8±20%	100KHz,0.1V	22.00	18.0	9.0
SM134T-8R2M-R-S	8.2±20%	100KHz,0.1V	28.00	16.0	8.5
SM134T-100M-R-S	10±20%	100KHz,0.1V	34.00	14.0	7.0
SM134T-220M-R-S	22±20%	100KHz,0.1V	90.00	4.50	3.0

SM135T Series

Part Number	Inductance	Test Conditions	DC Resistance Max.	Saturation Current	Heat Rating Current
Unit	uH	-	m OHM	A	A
Symbol	L	-	DCR	Isat	Irms
SM135T-R47M-R-S	0.47±20%	100KHz,0.1V	1.30	65.0	38.0
SM135T-R82M-R-S	0.82±20%	100KHz,0.1V	2.30	53.0	31.0
SM135T-1R0M-R-S	1.0±20%	100KHz,0.1V	2.50	50.0	29.0
SM135T-1R5M-R-S	1.5±20%	100KHz,0.1V	4.10	48.0	23.0
SM135T-1R8M-R-S	1.8±20%	100KHz,0.1V	4.90	40.0	19.0
SM135T-2R2M-R-S	2.2±20%	100KHz,0.1V	5.50	32.0	20.0
SM135T-3R3M-R-S	3.3±20%	100KHz,0.1V	9.20	32.0	15.0
SM135T-4R7M-R-S	4.7±20%	100KHz,0.1V	15.00	27.0	12.0
SM135T-5R6M-R-S	5.6±20%	100KHz,0.1V	16.50	22.0	11.5
SM135T-6R8M-R-S	6.8±20%	100KHz,0.1V	18.50	21.0	11.0
SM135T-8R2M-R-S	8.2±20%	100KHz,0.1V	22.50	18.0	9.5
SM135T-100M-R-S	10±20%	100KHz,0.1V	25.50	16.0	9.0

- ※1: All test data is referenced to 20℃ ambient;
- ※2: Rated current: Isat or Irms, whichever is smaller;
- ※3: Isat: DC current at which the inductance drops approximate 30% from its value without current;
- ※4: Irms:DC current that causes the temperature rise(ΔT=40℃) from 20℃ ambient.

PACKAGING

Series	Quantity (pcs/reel)	Series	Quantity (pcs/reel)	Series	Quantity (pcs/reel)
SM042	2000	SM063T	1000	SM134T	500
SM062T	2000	SM104T	500	SM135T	500