

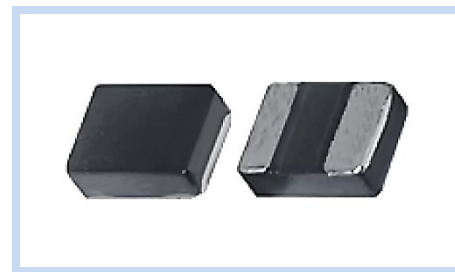
SMD Chip Inductor High Current Molded Type

SIM-AM Series

MERITEK

FEATURE

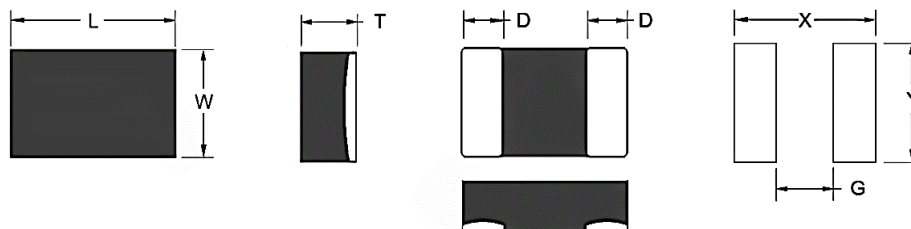
- High Saturation Current, Low DCR, High Efficiency
- Magnetically Shielded Construction
- Application: DC/DC Converters, Smart Phone, PAD, Power Supply



ELECTRICAL CHARACTERISTICS

Part Series	Size (Code)	Inductance (μ H)	Tolerance (%)	DCR Max (m Ω)	Isat Max (A)	Irms Max (A)
SIM65-AM	0605 (65)	0.24~0.47	$\pm 20\%$ (M)	27~35	4.6~6.0	3.8~4.1
SIM03-AM	0603 (03)	0.22~1.0	$\pm 20\%$ (M)	40~200	5.5~30	2.1~3.4
SIM05-AM	0805 (05)	0.10~10	$\pm 20\%$ (M)	13~660	1.2~8.5	1.1~7.5
SIM06-AM	0806 (06)	0.10~10	$\pm 20\%$ (M)	6~800	1.0~13	1.0~12
SIM08-AM	1008 (08)	0.10~10	$\pm 20\%$ (M)	10~560	1.55~13.5	1.05~12
SIM10-AM	1210 (10)	0.10~10	$\pm 20\%$ (M)	7~365	2.2~18	2.2~12

DIMENSIONS



Unit: mm

Size Code	L ± 0.20	W ± 0.20	T Max	D ± 0.20	X	Y	G
0605 (65)	1.4	1.2	0.8	0.45	1.5	1.3	0.45
0603 (03)	1.6	0.8	0.80	0.40	1.7	0.9	0.4
0805 (05)	2.0	1.2	0.80, 1.0	0.75	2.1	1.3	0.5
0806 (06)	2.0	1.6	0.80, 1.0, 1.2	0.70	2.1	1.7	0.5
1008 (08)	2.5	2.0	0.80, 1.0, 1.2	0.90	2.6	2.1	0.7
1210 (10)	3.2	2.5	1.0, 1.2	1.15	3.3	2.6	0.9

PART NUMBERING SYSTEM

SIM (1) 05 (2) 1R0M (3) 10 (4) AM (5)

No.	Item	Code	Description
(1)	Product Code	SIM	SMD Chip Inductor Series
(2)	Size Code	05	0805: 2.0x1.2mm (W x L) See dimensions table
(3)	Inductance	1R0M	1.0 μ H $\pm 20\%$ (M) R denotes decimal point
(4)	Thickness	10	Maximum 1.0mm 08: 0.8mm, 12: 1.2mm
(5)	Series Code	AM	High Current Molded Series

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ELECTRICAL CHARACTERISTICS

Size (Code)	Part Number	Inductance (μ H)	DCR Max (m Ω)	Isat (A)		Irms (A)	
				Max	Typ	Max	Typ
0605 (65)	SIM65R24M08AM	0.24 $\pm$ 20% (M)	27	5.7	6.0	3.7	4.1
	SIM65R33M08AM	0.33 $\pm$ 20% (M)	28	5.0	5.3	3.5	4.0
	SIM65R47M08AM	0.47 $\pm$ 20% (M)	35	4.2	4.6	3.3	3.8
0603 (03)	SIM03R22M08AM	0.22 $\pm$ 20% (M)	40	5.0	5.5	3.0	3.4
	SIM03R24M08AM	0.24 $\pm$ 20% (M)	41	4.8	5.3	2.9	3.3
	SIM03R47M08AM	0.47 $\pm$ 20% (M)	100	3.7	4.1	2.3	2.6
	SIM03R56M08AM	0.56 $\pm$ 20% (M)	110	3.5	4.0	1.9	2.2
	SIM03R68M08AM	0.68 $\pm$ 20% (M)	130	3.0	3.3	1.9	2.1
	SIM031R0M08AM	1.0 $\pm$ 20% (M)	200	2.3	3.0	1.8	2.1
0805 (05)	SIM05R24M08AM	0.24 $\pm$ 20% (M)	23	6.0	6.5	5.9	6.5
	SIM05R33M08AM	0.33 $\pm$ 20% (M)	45	4.8	5.2	4.0	4.3
	SIM05R47M08AM	0.47 $\pm$ 20% (M)	50	4.6	5.0	3.3	3.5
	SIM05R68M08AM	0.68 $\pm$ 20% (M)	60	3.7	4.2	3.3	3.7
	SIM051R0M08AM	1.0 $\pm$ 20% (M)	70	3.5	4.0	2.9	3.3
	SIM051R5M08AM	1.5 $\pm$ 20% (M)	135	2.5	3.0	1.9	2.2
	SIM052R2M08AM	2.2 $\pm$ 20% (M)	185	2.3	2.6	1.8	2.2
	SIM054R7M08AM	4.7 $\pm$ 20% (M)	325	1.4	1.6	1.5	1.7
0805 (05)	SIM05R10M10AM	0.10 $\pm$ 20% (M)	13	8.0	8.5	7.0	7.5
	SIM05R22M10AM	0.22 $\pm$ 20% (M)	22	6.8	7.3	6.5	7.1
	SIM05R24M10AM	0.24 $\pm$ 20% (M)	23	6.7	7.2	6.4	7.0
	SIM05R33M10AM	0.33 $\pm$ 20% (M)	32	6.0	6.5	5.0	5.5
	SIM05R47M10AM	0.47 $\pm$ 20% (M)	36	5.0	5.5	4.3	4.7
	SIM05R68M10AM	0.68 $\pm$ 20% (M)	43	4.5	5.0	4.0	4.3
	SIM051R0M10AM	1.0 $\pm$ 20% (M)	63	3.5	4.0	3.5	3.9
	SIM051R5M10AM	1.5 $\pm$ 20% (M)	85	2.7	3.2	2.6	3.1
	SIM052R2M10AM	2.2 $\pm$ 20% (M)	150	2.4	2.7	1.7	2.0
	SIM056R8M10AM	6.8 $\pm$ 20% (M)	520	1.2	1.45	1.3	1.5
	SIM05100M10AM	10.0 $\pm$ 20% (M)	660	1.0	1.2	1.0	1.1
0806 (06)	SIM06R22M08AM	0.22 $\pm$ 20% (M)	19	5.6	6.1	5.9	6.6
	SIM06R24M08AM	0.24 $\pm$ 20% (M)	20	5.5	6.0	5.8	6.5
	SIM06R33M08AM	0.33 $\pm$ 20% (M)	24	5.3	5.8	4.8	5.5
	SIM06R47M08AM	0.47 $\pm$ 20% (M)	27	5.0	5.5	4.4	4.6
	SIM06R68M08AM	0.68 $\pm$ 20% (M)	44	4.2	4.6	3.5	3.8
	SIM061R0M08AM	1.0 $\pm$ 20% (M)	60	3.1	3.3	3.3	3.6
	SIM061R5M08AM	1.5 $\pm$ 20% (M)	85	2.8	3.0	2.8	3.1
	SIM062R2M08AM	2.2 $\pm$ 20% (M)	140	2.3	2.5	2.0	2.2
	SIM063R3M08AM	3.3 $\pm$ 20% (M)	220	1.8	2.1	1.5	1.8
	SIM064R7M08AM	4.7 $\pm$ 20% (M)	290	1.5	1.7	1.4	1.6
	SIM06100M08AM	10.0 $\pm$ 20% (M)	800	0.9	1.0	0.9	1.0

Note:

1. Inductance test under 1MHz, 1.0Vrms.
2. All test data referenced to 25°C ambient
3. Isat based on inductance drop ($\Delta L/L_0$: $\leq$ 30%) approximately.
4. Irms based on temperature rise (ΔT : 40°C) approximately.
5. Operating temperature: -55°C ~ +125°C (Including self-temperature rise)

SMD Chip Inductor

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ELECTRICAL CHARACTERISTICS (CONTINUED)

Size	Part Number	Inductance (μ H)	DCR Max (m Ω)	Isat (A)		Irms (A)	
				Max	Typ	Max	Typ
0806 (06)	SIM06R10M10AM	0.10 $\pm$ 20% (M)	12	8.4	9.0	8.0	8.5
	SIM06R15M10AM	0.15 $\pm$ 20% (M)	14	8.0	8.7	7.0	7.6
	SIM06R22M10AM	0.22 $\pm$ 20% (M)	18	7.5	8.2	6.3	6.9
	SIM06R24M10AM	0.24 $\pm$ 20% (M)	19	7.4	8.0	6.2	6.8
	SIM06R33M10AM	0.33 $\pm$ 20% (M)	22	6.5	7.0	5.3	5.7
	SIM06R47M10AM	0.47 $\pm$ 20% (M)	25	5.5	6.3	5.0	5.5
	SIM06R68M10AM	0.68 $\pm$ 20% (M)	32	4.7	5.2	4.3	4.6
	SIM061R0M10AM	1.0 $\pm$ 20% (M)	43	4.2	4.6	4.1	4.5
	SIM061R5M10AM	1.5 $\pm$ 20% (M)	100	2.9	3.2	2.3	2.6
	SIM062R2M10AM	2.2 $\pm$ 20% (M)	130	2.8	3.0	2.1	2.5
	SIM063R3M10AM	3.3 $\pm$ 20% (M)	170	2.0	2.3	1.5	1.7
	SIM064R7M10AM	4.7 $\pm$ 20% (M)	220	1.8	2.0	1.4	1.6
	SIM06100M10AM	10.0 $\pm$ 20% (M)	580	1.1	1.4	0.7	1.0
0806 (06)	SIM06R10M12AM	0.10 $\pm$ 20% (M)	6	11.5	13.0	10.0	12.0
	SIM06R15M12AM	0.15 $\pm$ 20% (M)	10	10.5	12.0	9.0	10.0
	SIM06R24M12AM	0.24 $\pm$ 20% (M)	11	8.7	9.2	8.6	9.1
	SIM06R33M12AM	0.33 $\pm$ 20% (M)	15	7.3	7.8	7.2	7.7
	SIM06R47M12AM	0.47 $\pm$ 20% (M)	17	6.0	6.7	6.0	6.7
	SIM06R68M12AM	0.68 $\pm$ 20% (M)	23	5.3	6.0	5.3	6.0
	SIM061R0M12AM	1.0 $\pm$ 20% (M)	36	4.5	5.0	4.5	5.0
	SIM061R5M12AM	1.5 $\pm$ 20% (M)	50	3.5	4.0	3.5	4.0
	SIM062R2M12AM	2.2 $\pm$ 20% (M)	90	2.7	3.1	2.9	3.3
	SIM063R3M12AM	3.3 $\pm$ 20% (M)	165	2.3	2.7	2.0	2.4
1008 (08)	SIM08R47M08AM	0.47 $\pm$ 20% (M)	27	5.3	6.0	6.0	6.5
	SIM081R0M08AM	1.0 $\pm$ 20% (M)	40	4.0	4.5	4.0	4.3
	SIM081R5M08AM	1.5 $\pm$ 20% (M)	75	3.0	3.5	3.0	3.4
	SIM082R2M08AM	2.2 $\pm$ 20% (M)	77	2.6	3.0	2.6	3.0
	SIM083R3M08AM	3.3 $\pm$ 20% (M)	180	2.1	2.5	2.1	2.5
1008 (08)	SIM08R22M10AM	0.22 $\pm$ 20% (M)	17	7.9	8.6	6.5	6.8
	SIM08R24M10AM	0.24 $\pm$ 20% (M)	17.5	7.8	8.5	6.4	6.7
	SIM08R33M10AM	0.33 $\pm$ 20% (M)	19	7.2	7.6	6.2	6.5
	SIM08R47M10AM	0.47 $\pm$ 20% (M)	22	6.5	6.9	5.6	6.1
	SIM08R68M10AM	0.68 $\pm$ 20% (M)	27	5.5	5.9	5.0	5.6
	SIM081R0M10AM	1.0 $\pm$ 20% (M)	30	4.8	5.3	4.1	4.5
	SIM081R5M10AM	1.5 $\pm$ 20% (M)	55	3.9	4.3	3.0	3.4
	SIM082R2M10AM	2.2 $\pm$ 20% (M)	70	3.0	3.3	2.1	2.4
	SIM083R3M10AM	3.3 $\pm$ 20% (M)	100	2.5	2.8	2.1	2.5
	SIM084R7M10AM	4.7 $\pm$ 20% (M)	180	2.0	2.6	1.6	2.0
	SIM086R8M10AM	6.8 $\pm$ 20% (M)	320	1.9	2.4	1.4	1.6
	SIM08100M10AM	10.0 $\pm$ 20% (M)	560	1.4	1.55	0.95	1.05

Note:

1. Inductance test under 1MHz, 1.0Vrms.
2. All test data referenced to 25°C ambient
3. Isat based on inductance drop ($\Delta L/L0$: $\leq$ 30%) approximately.
4. Irms based on temperature rise (ΔT : 40°C) approximately.
5. Operating temperature: -55°C ~ +125°C (Including self-temperature rise)

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ELECTRICAL CHARACTERISTICS (CONTINUED)

Size	Part Number	Inductance (μ H)	DCR Max (m Ω)	Isat (A)		Irms (A)	
				Max	Typ	Max	Typ
1008 (08)	SIM08R10M12AM	0.10 $\pm$ 20% (M)	10	12.5	13.5	10.5	12.0
	SIM08R15M12AM	0.15 $\pm$ 20% (M)	11	12.0	13.0	10.0	11.5
	SIM08R22M12AM	0.22 $\pm$ 20% (M)	14	9.0	9.6	7.6	8.2
	SIM08R24M12AM	0.24 $\pm$ 20% (M)	15	8.8	9.3	7.5	8.0
	SIM08R33M12AM	0.33 $\pm$ 20% (M)	17	7.8	8.3	6.4	6.8
	SIM08R47M12AM	0.47 $\pm$ 20% (M)	19	7.0	7.5	6.0	6.5
	SIM08R68M12AM	0.68 $\pm$ 20% (M)	23	6.0	6.5	5.5	6.3
	SIM08R82M12AM	0.82 $\pm$ 20% (M)	24	5.8	6.5	5.3	5.8
	SIM081R0M12AM	1.0 $\pm$ 20% (M)	42	5.0	5.6	3.6	4.0
	SIM081R5M12AM	1.5 $\pm$ 20% (M)	50	4.1	4.5	3.2	3.7
	SIM082R2M12AM	2.2 $\pm$ 20% (M)	65	3.3	3.8	2.7	3.0
	SIM083R3M12AM	3.3 $\pm$ 20% (M)	97	2.7	3.0	1.8	2.3
	SIM084R7M12AM	4.7 $\pm$ 20% (M)	170	2.1	2.4	1.5	1.8
	SIM086R8M12AM	6.8 $\pm$ 20% (M)	270	1.7	2.0	1.4	1.6
	SIM08100M12AM	10.0 $\pm$ 20% (M)	400	1.45	1.6	1.05	1.2
1210 (10)	SIM10R33M10AM	0.33 $\pm$ 20% (M)	15	7.8	8.3	7.8	8.3
	SIM10R47M10AM	0.47 $\pm$ 20% (M)	22	7.6	8.3	5.9	6.4
	SIM10R68M10AM	0.68 $\pm$ 20% (M)	28	7.0	7.5	5.7	6.2
	SIM101R0M10AM	1.0 $\pm$ 20% (M)	30	5.3	6.0	4.9	5.4
	SIM101R5M10AM	1.5 $\pm$ 20% (M)	42	4.4	5.0	3.6	4.0
	SIM102R2M10AM	2.2 $\pm$ 20% (M)	66	3.5	4.0	3.4	3.7
	SIM103R3M10AM	3.3 $\pm$ 20% (M)	120	3.3	3.7	2.3	2.7
	SIM104R7M10AM	4.7 $\pm$ 20% (M)	140	2.5	2.8	1.9	2.3
	SIM106R8M10AM	6.8 $\pm$ 20% (M)	320	2.0	2.4	1.6	1.9
	SIM10100M10AM	10.0 $\pm$ 20% (M)	365	1.8	2.2	1.8	2.2
1210 (10)	SIM10R10M12AM	0.10 $\pm$ 20% (M)	7	16.5	18.0	11.0	12.0
	SIM10R22M12AM	0.22 $\pm$ 20% (M)	10	11.0	11.5	8.7	9.2
	SIM10R24M12AM	0.24 $\pm$ 20% (M)	12	10.5	11.0	8.5	9.0
	SIM10R33M12AM	0.33 $\pm$ 20% (M)	14	9.5	10.0	8.1	8.4
	SIM10R47M12AM	0.47 $\pm$ 20% (M)	19	8.2	8.6	7.2	7.5
	SIM10R68M12AM	0.68 $\pm$ 20% (M)	23	7.7	8.1	6.8	7.3
	SIM101R0M12AM	1.0 $\pm$ 20% (M)	30	5.8	6.6	4.8	5.3
	SIM101R5M12AM	1.5 $\pm$ 20% (M)	44	4.7	5.1	4.3	4.7
	SIM102R2M12AM	2.2 $\pm$ 20% (M)	70	4.2	4.6	3.0	3.6
	SIM103R3M12AM	3.3 $\pm$ 20% (M)	95	3.2	3.7	2.5	2.9
	SIM104R7M12AM	4.7 $\pm$ 20% (M)	135	2.6	2.9	2.0	2.3
	SIM106R8M12AM	6.8 $\pm$ 20% (M)	210	2.4	2.8	1.9	2.1
	SIM10100M12AM	10.0 $\pm$ 20% (M)	230	1.9	2.3	1.8	2.2

Note:

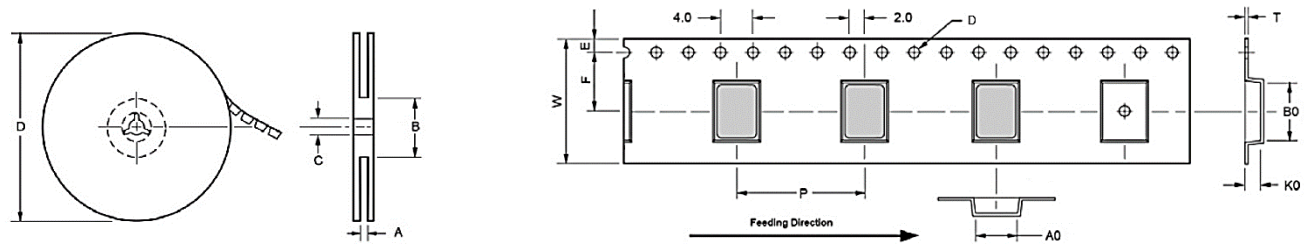
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PACKAGING SPECIFICATION



Size Code	Reel Dimension (mm)				Tape Dimensions (mm)									Qty
	A	B	C	D	W	P	D	E	F	A0	B0	K0	T	7"
	±0.5	±1.0	±0.5	+2.0	±0.3	±0.1	+0.1/0	±0.10	±0.10	±0.05	±0.05	±0.05	±0.05	Reel
0605	9.0	60	13	178	8.0	4.0	1.5	1.75	3.50	1.50	1.75	1.00	0.23	3000
0603	9.0	60	13	178	8.0	4.0	1.5	1.75	3.50	1.10	1.95	1.00	0.23	3000
0805	9.0	60	13	178	8.0	4.0	1.5	1.75	3.50	1.50	2.35	1.00	0.23	3000
0805	9.0	60	13	178	8.0	4.0	1.5	1.75	3.50	1.50	2.35	1.20	0.23	3000
0806	9.0	60	13	178	8.0	4.0	1.5	1.75	3.50	1.90	2.35	1.00	0.23	3000
0806	9.0	60	13	178	8.0	4.0	1.5	1.75	3.50	1.90	2.35	1.20	0.23	3000
0806	9.0	60	13	178	8.0	4.0	1.5	1.75	3.50	1.90	2.35	1.40	0.23	3000
1008	9.0	60	13	178	8.0	4.0	1.5	1.75	3.50	2.40	2.85	1.00	0.23	3000
1008	9.0	60	13	178	8.0	4.0	1.5	1.75	3.50	2.40	2.85	1.20	0.23	3000
1008	9.0	60	13	178	8.0	4.0	1.5	1.75	3.50	2.40	2.85	1.40	0.23	3000
1210	9.0	60	13	178	8.0	4.0	1.5	1.75	3.50	2.90	3.55	1.20	0.23	3000
1210	9.0	60	13	178	8.0	4.0	1.5	1.75	3.50	2.90	3.55	1.40	0.23	3000

*Specifications subject to change without notice.