

Type 3634 Series



The 3634 series is a modern range of high current inductors, completely shielded and designed in low profile packages for a range of Industrial Applications. With nine different styles available giving currents up to 4.8A, and height profiles as little as 1.15mm it is no surprise that this series is frequently chosen for new designs in Power Supply and Communications projects.

Key Features

- Wide value range
- Ferrite Core
- Excellent reliability
- Taped and Reeled
- High Current
- Available in nine different packages

**PRODUCT
PLANNED FOR
EOL**

LTB 18/08/2023

Type 3634 Series

**Electrical Characteristics -
3634A Series**

Inductance Code	Inductance (µH)	Tolerance	R.D.C. (mΩ)		Isat (mA) Typ.	Irms (mA) Max.
			Typ.	Max.		
1R5	1.5	±30%	42	55	1300	1600
2R5	2.5	±30%	66	85	1000	1200
3R3	3.3	±30%	70	90	850	1000
4R7	4.7	±30%	96	125	750	900
6R8	6.8	±30%	160	210	620	720
100	10.0	±30%	220	280	500	650
150	15.0	±30%	330	420	380	480
220	22.0	±30%	520	680	320	380
330	33.0	±30%	670	860	270	320
470	47.0	±30%	1450	1800	230	270
680	68.0	±30%	1820	2250	180	220
101	100.0	±30%	3000	3600	150	180

**Electrical Characteristics -
3634B Series**

Inductance Code	Inductance (µH)	Tolerance	Q Ref	Test Freq. (MHz)	S.R.F. (MHz) Typ.	R.D.C. (mΩ)		Irms (mA) Typ.	Isat (mA) Typ.
						Typ.	Max.		
1R5	1.5	±30%	7	7.96	130	68	88	1900	1800
2R2	2.2	±30%	7	7.96	120	105	135	1600	1600
3R3	3.3	±30%	6	7.96	100	130	170	1400	1400
4R7	4.7	±30%	7	7.96	80	185	240	1200	1150
6R8	6.8	±30%	6	7.96	70	270	340	1000	970
100	10.0	±30%	6	2.52	50	415	520	800	700
150	15.0	±30%	6	2.52	40	720	900	650	620
220	22.0	±30%	6	2.52	30	1150	1450	540	500
330	33.0	±30%	6	2.52	25	1550	1900	440	380
470	47.0	±30%	6	2.52	20	1950	2400	350	300

**Electrical Characteristics -
3634J Series**

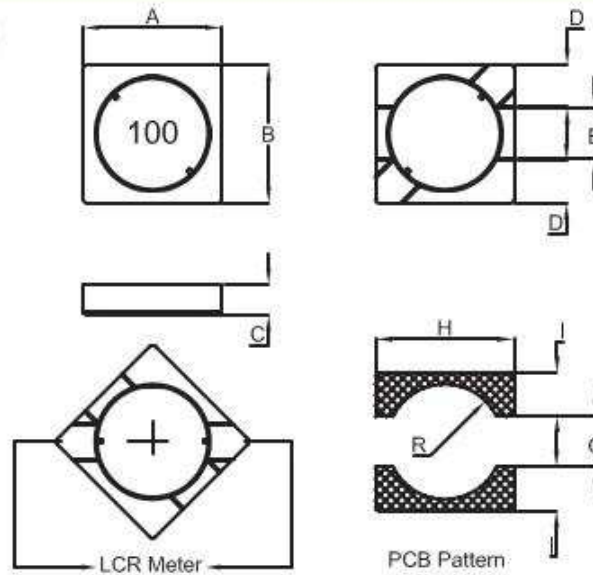
Inductance Code	Inductance (µH)	Tolerance	R.D.C. (W) Max.		Irms (A) Max.	Isat (A) Typ.
			Typ.	Max.		
2R5	2.5	±30%	19.0	25.0	2.80	3.00
3R3	3.3	±30%	21.0	28.0	2.50	2.60
3R9	3.9	±30%	24.0	32.0	2.45	2.30
5R0	5.0	±30%	27.0	36.0	2.40	2.10
6R0	6.0	±30%	30.0	40.0	2.30	2.00
7R3	7.3	±30%	38.0	52.0	2.20	1.85
8R6	8.6	±30%	42.0	56.0	2.10	1.82
100	10.0	±30%	47.0	65.0	2.00	1.70
150	15.0	±30%	58.0	78.0	1.70	1.30
220	22.0	±30%	88.0	115.0	1.40	1.08
330	33.0	±30%	120.0	155.0	1.15	0.92
470	47.0	±30%	185.0	235.0	0.92	0.72
680	68.0	±30%	245.0	300.0	0.80	0.60
101	100.0	±30%	385.0	500.0	0.58	0.55
151	150.0	±30%	540.0	680.0	0.50	0.42
221	220.0	±30%	660.0	820.0	0.45	0.36
331	330.0	±30%	1100.0	1400.0	0.37	0.27
471	470.0	±30%	1650.0	2100.0	0.27	0.22
681	680.0	±30%	2450.0	3100.0	0.22	0.20
102	1000.0	±30%	3600.0	4500.0	0.15	0.17

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**Environmental Characteristics -
A, B, J Series**

Storage Temp:	-40°C to +125°C
Operating Temp:	-40°C to +105°C
Rated Current:	Base on temp. rise & $\Delta L/L_{0A}=35\%$ typ.
Temp. Rise:	30°C max. (40°C max. - B and J Series)

**Dimensions
A, B, J Series**



Series	A	B	C	D	E	G	H	I	R
3634A	3.80±0.3	3.80±0.3	1.15±0.15	1.30 typ.	1.20 typ.	1.10 ref.	4.30 ref.	1.60 ref.	1.30 ref.
3634B	3.80±0.3	3.80±0.3	1.15±0.15	1.30 typ.	1.20 typ.	1.10 ref.	4.30 ref.	1.60 ref.	1.30 ref.
3634J	6.80±0.2	6.80±0.2	2.80±0.2	2.30 typ.	2.20 typ.	2.10 typ.	7.30 ref.	2.60 ref.	2.70 ref.

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Electrical Characteristics - 3634C Series

Inductance Code	Inductance (µH)	Tolerance	R. D. C. (W) Max.		I _{rms} (mA) Max.	I _{sat} (mA) Typ.
			Max.	Typ.		
1R5	1.5	±30%	47	35	1750	1550
2R5	2.5	±30%	58	45	1450	1250
3R6	3.6	±30%	85	65	1380	1100
4R7	4.7	±30%	105	85	1200	900
6R8	6.8	±30%	156	125	850	750
100	10.0	±30%	205	165	740	560
150	15.0	±30%	285	230	620	450
220	22.0	±30%	450	360	510	360
330	33.0	±30%	660	545	420	320
470	47.0	±30%	1000	800	390	250
680	68.0	±30%	1450	1200	320	220
101	100.0	±30%	2400	2050	250	180

Electrical Characteristics - 3634D Series

Inductance Code	Inductance (µH)	Tolerance	R. D. C. (mΩ)	I. D. C. (mA)
			Max.	Typ.
1R0	1.0	±30%	35.0	2600.0
1R8	1.8	±30%	58.0	2200.0
2R7	2.7	±30%	60.0	1950.0
3R3	3.3	±30%	65.0	1800.0
3R9	3.9	±30%	75.0	1650.0
4R7	4.7	±30%	82.0	1500.0
5R6	5.6	±30%	90.0	1250.0
6R8	6.8	±30%	100.0	1150.0
8R2	8.2	±30%	135.0	1100.0
100	10.0	±30%	150.0	1000.0
120	12.0	±30%	170.0	900.0
150	15.0	±30%	220.0	820.0
180	18.0	±30%	280.0	750.0
220	22.0	±30%	300.0	650.0
270	27.0	±30%	370.0	600.0
330	33.0	±30%	420.0	500.0
390	39.0	±30%	540.0	480.0
470	47.0	±30%	600.0	450.0
560	56.0	±30%	820.0	400.0
680	68.0	±30%	860.0	380.0
820	82.0	±30%	1200.0	320.0
101	100.0	±30%	1350.0	300.0

Electrical Characteristics - 3634E Series

Inductance Code	Inductance (µH)	Tolerance	R. D. C. (mΩ)	I. D. C. (mA)
			Max.	Typ.
1R2	1.2	±30%	20.0	2560.0
1R8	1.8	±30%	25.0	2200.0
2R2	2.2	±30%	28.0	2050.0
2R7	2.7	±30%	30.0	1800.0
3R3	3.3	±30%	35.0	1650.0
3R9	3.9	±30%	60.0	1500.0
4R7	4.7	±30%	70.0	1300.0
5R6	5.6	±30%	85.0	1200.0
6R8	6.8	±30%	90.0	1150.0
8R2	8.2	±30%	100.0	1050.0
100	10.0	±30%	110.0	1000.0
120	12.0	±30%	125.0	850.0
150	15.0	±30%	150.0	780.0

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Electrical Characteristics - 3634E Series (continued)

Inductance Code	Inductance (µH)	Tolerance	R.D.C. (mΩ) Max.	I.D.C. (mA) Typ.
180	18.0	±30%	160.0	750.0
220	22.0	±30%	185.0	720.0
270	27.0	±30%	200.0	600.0
330	33.0	±30%	230.0	580.0
390	39.0	±30%	250.0	500.0
470	47.0	±30%	280.0	480.0
560	56.0	±30%	320.0	410.0
680	68.0	±30%	400.0	360.0
820	82.0	±30%	520.0	320.0
101	100.0	±30%	600.0	300.0
121	120.0	±30%	700.0	280.0
151	150.0	±30%	860.0	260.0
181	180.0	±30%	1000.0	230.0
221	220.0	±30%	1250.0	200.0
271	270.0	±30%	1500.0	180.0
331	330.0	±30%	1700.0	170.0
391	390.0	±30%	2200.0	160.0
471	470.0	±30%	2600.0	155.0
561	560.0	±30%	3000.0	150.0

Electrical Characteristics - 3634F Series

Inductance Code	Inductance (µH)	Tolerance	S.R.F. (MHz) Typ.	R.D.C. (mΩ) Max.	I.D.C. (A) Typ.
1R2	1.2	±30%	100	0.030	3.00
1R8	1.8	±30%	90	0.035	2.60
2R5	2.5	±30%	80	0.040	2.40
3R0	3.0	±30%	70	0.045	2.20
3R9	3.9	±30%	60	0.055	2.00
5R0	5.0	±30%	58	0.060	1.65
6R2	6.2	±30%	55	0.080	1.45
7R5	7.5	±30%	50	0.090	1.35
9R0	9.0	±30%	40	0.100	1.25
100	10.0	±30%	40	0.130	1.10
120	12.0	±30%	38	0.160	1.00
150	15.0	±30%	36	0.190	0.95
180	18.0	±30%	32	0.210	0.90
220	22.0	±30%	28	0.280	0.80
270	27.0	±30%	26	0.320	0.75
330	33.0	±30%	22	0.350	0.65
390	39.0	±30%	18	0.500	0.55
470	47.0	±30%	18	0.550	0.52
560	56.0	±30%	16	0.600	0.48
680	68.0	±30%	14	0.850	0.40
820	82.0	±30%	13	0.950	0.38
101	100.0	±30%	12	1.100	0.35
121	120.0	±30%	10	1.420	0.30
151	150.0	±30%	9	1.650	0.28
181	180.0	±30%	8	2.300	0.25
221	220.0	±30%	7	2.500	0.23

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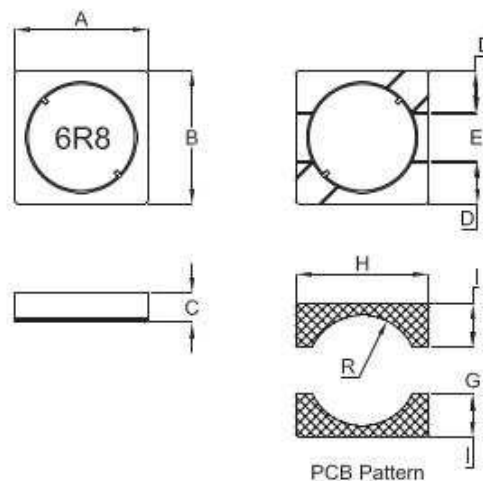
**Electrical Characteristics -
3634G Series**

Inductance Code	Inductance (µH)	Tolerance	S.R.F. (MHz) Typ.	R.D.C. (mΩ) Max.	I.D.C. (A) Typ.
2R6	2.6	±30%	55.0	0.030	2.70
3R0	3.0	±30%	45.0	0.030	2.50
4R2	4.2	±30%	40.0	0.035	2.20
5R3	5.3	±30%	45.0	0.040	1.90
6R2	6.2	±30%	40.0	0.045	1.80
8R2	8.2	±30%	28.0	0.055	1.60
100	10.0	±30%	25.0	0.070	1.40
120	12.0	±30%	20.0	0.080	1.25
150	15.0	±30%	20.0	0.100	1.15
180	18.0	±30%	20.0	0.110	1.10
220	22.0	±30%	18.0	0.120	1.00
270	27.0	±30%	16.0	0.160	0.90
330	33.0	±30%	15.0	0.190	0.78
390	39.0	±30%	14.0	0.210	0.72
470	47.0	±30%	13.0	0.250	0.65
560	56.0	±30%	11.0	0.300	0.60
680	68.0	±30%	10.0	0.350	0.56
820	82.0	±30%	9.0	0.430	0.50
101	100.0	±30%	8.5	0.480	0.45
151	150.0	±30%	6.5	0.900	0.35
221	220.0	±30%	6.0	1.250	0.30
331	330.0	±30%	4.5	2.000	0.20
681	680.0	±30%	2.8	4.300	0.14

**Environmental Characteristics -
C, D, E, F, G Series**

Storage Temp:	-40°C to +125°C
Operating Temp:	-40°C to +105°C (-250°C to +105°C - C Series)
Rated Current:	Based on temp. rise ΔL/L=35% typ.
Temp. Rise:	30°C max. (40°C typ. - F Series)

**Dimensions
C, D, E, F, G Series**



Series	A ±0.3	B ±0.3	C	D typ.	E typ.	G ref.	H ref.	I ref.	R ref.
3634C	3.80	3.80	1.80±0	1.30	1.20	1.10	4.30	1.60	1.30
3634D	4.80	4.80	2.00±0	1.60	1.60	1.50	5.30	2.00	1.80
3634E	4.80	4.80	3.00±0	1.60	1.60	1.50	5.30	2.00	1.80
3634F	5.80	5.80	2.00±0	1.90	2.00	1.90	6.30	2.20	2.20
3634G	5.80	5.80	3.00±0	1.90	2.00	1.90	6.30	2.20	2.20

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**Reliability Test -
A, C, D, E, F, G, H, J Series**

Test Item	Specification	Test Condition
Thermal Shock Test: (Temp Cycle)	$\Delta L \leq 30\%$	Room Temp. $\rightarrow -25 \pm 2^\circ\text{C}$ 15 minutes \rightarrow 30 minutes Room Temp. $\rightarrow 85 \pm 2^\circ\text{C}$ 15 minutes \rightarrow 30 minutes Total: 50 cycles
Humidity Resistance Test:	$\Delta L \leq 30\%$	Temperature: $40 \pm 2^\circ\text{C}$ Humidity: 90 - 95% Applied Current: Per spec. Time: 500 hours
High Temp. Resistance Test:	$\Delta L \leq 30\%$	Temperature: $85 \pm 2^\circ\text{C}$ Applied Current: Per spec. Time: 500 hours

**Reliability Test -
B Series**

Test Item	Specification	Test Condition
Thermal Shock Test: (Temp Cycle)	$\Delta L \leq 20\%$	Room Temp. $\rightarrow -25 \pm 2^\circ\text{C}$ 15 minutes \rightarrow 30 minutes Room Temp. $\rightarrow 85 \pm 2^\circ\text{C}$ 15 minutes \rightarrow 30 minutes Total: 50 cycles
Humidity Resistance Test:	$\Delta L \leq 20\%$	Temperature: $40 \pm 2^\circ\text{C}$ Humidity: 90 - 95% Applied Current: Per spec. Time: 500 hours
High Temp. Resistance Test:	$\Delta L \leq 20\%$	Temperature: $105 \pm 2^\circ\text{C}$ Applied Current: Per spec. Time: 500 hours

How to Order

3634	A	1R2	N
Common Part	Style	Inductance	Tolerance
3634	A, B, C, D, E F, G, H or J	See Relevant Table for Inductance Code	N - 30%

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