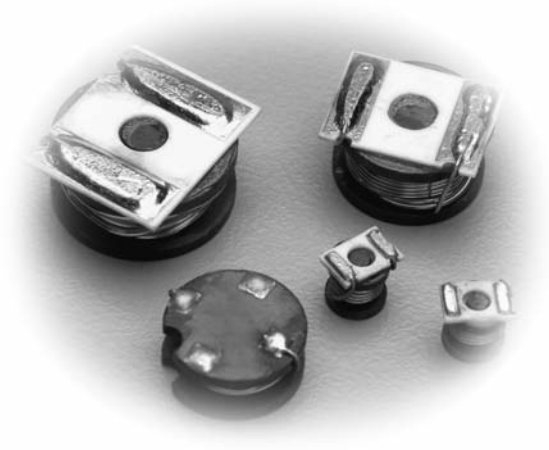
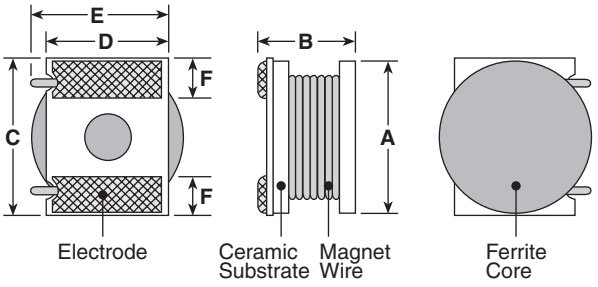
EU RoHS COMPLIANT



features

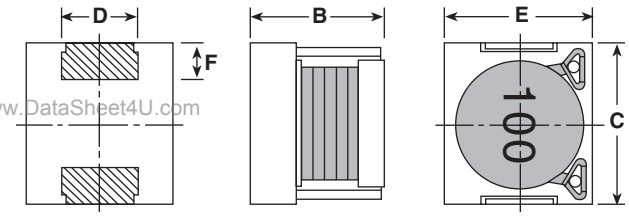
- Small size allows for high mounting density
- Suitable for reflow soldering
- Large DC current capacity with low DC resistance
- Polarity identification available
- E-6 series of values (customs available)
- Marking: Black body color with no marking
- Products with lead-free terminations meet EU RoHS requirements

dimensions and construction

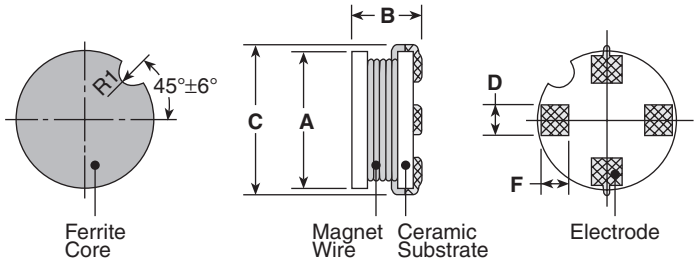


4045, 10065, 12065

	Size	Dimensions inches (mm) A	B	C	D	E	F
	4045	ø.157±.008 (ø4.0±0.2)	.169±.009 (4.3±0.2)	.177±.008 (4.5±0.2)	.118±.008 (3.0±0.2)	.138 (3.5)	.039±.112 (1.0±0.3)
NEW	4235	—	.138 Max. (3.5 Max.)	.177±.008 (4.5±0.2)	.079±.008 (2.0±0.2)	.165±.008 (4.2±0.2)	.039±.008 (1.0±0.2)
	9040N	ø.354± $^{+.002}_{-.004}$ (ø9.0 $^{+0.05}_{-0.1}$)	.193 Max. (4.9 Max.)	.402 Max. (10.2 Max.)	.079±.008 (2.0±0.2)	—	.071±.008 (1.8±0.2)
	10065	ø.394±.008 (ø10.0±0.2)	.295 Max. (7.5 Max.)	.409±.008 (10.4±0.2)	.315±.008 (8.0±0.2)	.354 (9.0)	.098±.008 (2.5±0.2)
	12065	ø.472±.008 (ø12.0±0.2)	.295 Max. (7.5 Max.)	.488±.008 (12.4±0.2)	.472±.008 (10.0±0.2)	.433 (11.0)	.146±.112 (3.7±0.3)



4235



9040N

ordering information

New Part #

LPC	4045	A	TED	101	K
Type	Size	Termination Material	Packaging	Nominal Inductance	Tolerance
	4045 4235 9040N 10065 12065	A: SnAg T: Sn (LPC4235 only)	TED: 10" embossed plastic (4045 - 1,000 pieces/reel) (4235 - 2,000 pieces/reel) (9040N - 500 pieces/reel) (10065 - 300 pieces/reel) (12065 - 300 pieces/reel)	101: 100µH 221: 220µH 152: 1500µH	K: ±10% M:±20% N: ±30%

For further information on packaging, please refer to Appendix A.

applications and ratings

Part Designation	Inductance (µH)	Inductance Tolerance	Quality Factor Minimum (MHz)	Self Resonant Frequency Minimum (MHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (Amps)	Measured Frequency (Hz)
LPC4045ATED1R0M	1.0	M: ±20%	20	90.0	0.015	3.10	1000
LPC4045ATED1R5M	1.5			70.0	0.020	2.80	
LPC4045ATED2R2M	2.2			55.0	0.023	2.50	
LPC4045ATED3R3M	3.3			45.0	0.044	1.80	
LPC4045ATED4R7M	4.7			35.0	0.062	1.45	
LPC4045ATED6R8M	6.8			25.0	0.075	1.30	
LPC4045ATED100K	10	K: ±10%		23.5	0.10	1.02	
LPC4045ATED150K	15			18.5	0.15	0.84	
LPC4045ATED220K	22			14.0	0.21	0.70	
LPC4045ATED330K	33			12.0	0.41	0.52	
LPC4045ATED470K	47			10.5	0.52	0.46	
LPC4045ATED680K	68			8.0	0.67	0.40	
LPC4045ATED101K	100			6.3	0.92	0.28	
LPC4045ATED151K	150		40	5.2	1.80	0.25	
LPC4045ATED221K	220			3.9	2.25	0.18	
LPC4045ATED331K	330			3.0	4.27	0.15	
LPC4045ATED471K	470			2.7	5.23	0.14	
LPC4045ATED681K	680			2.2	6.67	0.12	
LPC4235TTEDR82M	0.82	M: ±20%	—	146.6	0.017	3.34	—
LPC4235TTED1R0M	1.0			125.1	0.020	3.27	
LPC4235TTED1R2M	1.2			114.7	0.023	3.10	
LPC4235TTED1R5M	1.5			101.4	0.031	2.53	
LPC4235TTED2R2M	2.2			78.8	0.039	2.28	
LPC4235TTED3R3M	3.3			66.7	0.070	1.63	
LPC4235TTED4R7M	4.7			52.0	0.090	1.44	
LPC4235TTED6R8M	6.8			43.5	0.109	1.29	
LPC4235TTED100K	10	K: ±10%		33.5	0.190	0.91	
LPC4235TTED150K	15			29.1	0.230	0.87	
LPC4235TTED220K	22			21.7	0.366	0.69	
LPC4235TTED330K	33			13.9	0.542	0.52	
LPC4235TTED470K	47			12.0	0.688	0.47	
LPC4235TTED680K	68			12.7	1.30	0.34	
LPC4235TTED101K	100			10.4	1.66	0.31	
LPC4235TTED151K	150			7.5	2.96	0.22	
LPC4235TTED221K	220			6.7	3.77	0.20	
LPC9040NATED100M	10	M: ±20%	40	25.0	0.07	1.55	10 kHz
LPC9040NATED150K	15	K: ±10%	30	21.0	0.09	1.40	
LPC9040NATED220K	22			15.0	0.11	1.25	
LPC9040NATED330K	33		20	13.5	0.14	1.10	
LPC9040NATED470K	47			11.5	0.20	0.99	
LPC9040NATED680K	68		10	10.0	0.27	0.91	
LPC9040NATED101K	100			8.0	0.41	0.70	
LPC9040NATED151K	150			7.0	0.55	0.60	
LPC9040NATED221K	220			5.0	0.81	0.50	
LPC9040NATED331K	330			3.3	1.86	0.29	
LPC9040NATED471K	470			2.8	2.07	0.22	
LPC9040NATED681K	680			1.2	2.65	0.14	
LPC10065ATEDR68M	0.68	M: ±20%	40	75.0	6.0 mΩ	9.50	L Meas. Freq. 1 MHz Q Meas. Freq. 2.52 MHz
LPC10065ATED1R0M	1.0			65.0	7.0 mΩ	9.00	
LPC10065ATED1R5M	1.5			50.0	8.0 mΩ	8.50	
LPC10065ATED2R2M	2.2		30	40.0	9.0 mΩ	7.50	
LPC10065ATED3R3M	3.3			30.0	0.012	6.80	
LPC10065ATED4R7M	4.7			25.0	0.017	5.70	
LPC10065ATED6R8M	6.8		20	20.0	0.024	4.70	
LPC10065ATED100K	10	K: ±10%		15.0	0.036	3.90	
LPC10065ATED150K	15			12.0	0.054	3.15	
LPC10065ATED220K	22		15	9.0	0.080	2.60	
LPC10065ATED330K	33			8.0	0.120	2.30	
LPC10065ATED470K	47			6.0	0.175	1.79	

applications and ratings (continued)

Part Designation	Inductance (µH)	Inductance Tolerance	Quality Factor Minimum (MHz)	Self Resonant Frequency Minimum (MHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (Amps)	Measured Frequency (Hz)
LPC10065ATED680K	68	K: ±10%	30	5.0	0.255	1.48	100 MHz
LPC10065ATED101K	100			4.0	0.380	1.22	
LPC10065ATED151K	150			3.0	0.580	1.00	
LPC10065ATED221K	220			2.5	0.850	0.82	
LPC10065ATED331K	330			2.0	1.30	0.67	
LPC10065ATED471K	470			1.5	1.85	0.57	
LPC10065ATED681K	680			1.0	2.70	0.47	
LPC10065ATED102K	1.0 mH			0.95	4.00	0.38	
LPC10065ATED152K	1.5 mH			0.85	6.10	0.31	
LPC10065ATED222K	2.2 mH			0.70	9.00	0.26	
LPC10065ATED332K	3.3 mH			0.55	13.5	0.21	
LPC12065ATEDR68N	0.68	N: ±30%	40	77.0	5.0 mΩ	10.0	2.52 MHz
LPC12065ATED1R0N	1.0			60.0	7.0 mΩ	9.50	
LPC12065ATED1R5N	1.5			47.0	8.0 mΩ	9.00	
LPC12065ATED2R2N	2.2			38.0	10.0 mΩ	8.00	
LPC12065ATED3R3M	3.3	M: ±20%	30	30.0	0.012	7.00	
LPC12065ATED4R7M	4.7			24.0	0.016	6.50	
LPC12065ATED6R8M	6.8			19.0	0.022	5.40	
LPC12065ATED100K	10	K: ±10%		15.0	0.031	4.50	
LPC12065ATED150K	15		20	12.0	0.046	3.63	
LPC12065ATED220K	22			9.5	0.065	3.00	
LPC12065ATED330K	33			7.5	0.093	2.40	
LPC12065ATED470K	47			6.2	0.130	2.05	
LPC12065ATED680K	68			4.9	0.182	1.70	
LPC12065ATED101K	100		15	4.0	0.260	1.38	100 KHz
LPC12065ATED151K	150			3.2	0.380	1.14	
LPC12065ATED221K	220			2.5	0.540	0.94	
LPC12065ATED331K	330			2.0	0.790	0.77	
LPC12065ATED471K	470			1.6	1.08	0.65	
LPC12065ATED681K	680			1.3	1.55	0.53	
LPC12065ATED102K	1.0 mH		30	1.0	2.21	0.44	
LPC12065ATED152K	1.5 mH			0.83	3.20	0.35	
LPC12065ATED222K	2.2 mH			0.67	4.60	0.29	
LPC12065ATED332K	3.3 mH			0.53	6.60	0.23	
LPC12065ATED472K	4.7 mH			0.43	9.30	0.19	
LPC12065ATED682K	6.8 mH			0.34	13.2	0.16	

environmental applications

Performance Characteristics

Parameter	Maximum Δ L	Test Method
High Temperature Exposure	±5%	LPC4045, LPC9040, LPC10065, LPC12065: +85°C ± 2°C, 500 hours LPC4235, LPC9040E: +125°C ± 2°C, 500 hours
Low Temperature Exposure	±5%	-40°C, 500 hours
Moisture Exposure	±5%	+40°C, 90 - 95% RH, 500 hours
Temperature Cycling	±5%	-40°C (30 minutes)/+85°C (30 minutes), 100 cycles

Surface Temperature Rise graphs and additional environmental applications can also be found at www.koaspeer.com

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use. 11/23/08