

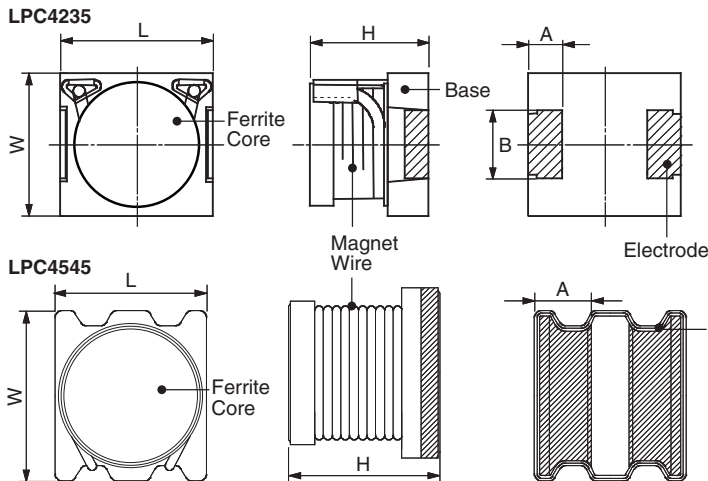
NEW



features

- Low DC resistance and high allowable current are realized by the original construction and wiring technology
- Automatic surface mounting is applicable
- Excellent solderability and endurance environment
- Suitable for reflow soldering
- Marking: Black body color with no marking
- Products meet EU RoHS requirements

dimensions and construction



| Size | Dimensions inches (mm) | | | | |
|------|------------------------|------------------------|-------------------------|------------------------|------------------------|
| | L | W | H Max. | A | B |
| 4235 | .177±.008 (4.5±0.2) | .165±.008 (4.2±0.2) | .138 Max. (3.5 Max.) | .039±.008 (1.0±0.2) | .079±.008 (2.0±0.2) |
| 4545 | .161±.012 (4.1±0.3) | .181±.016 (4.6±0.4) | .181 Max. (4.6 Max.) | .055±.012 (4.1±0.3) | — |

ordering information

| New Part # | LPC | 4235 | T | TED | 221 | K |
|------------|------|--------------|---|---|--|--------------------------------|
| | Type | Size | Termination Material | Packaging | Nominal Inductance | Tolerance |
| | | 4235 4545 | T: Sn (4235 only) C: Sn/Cu (4545 only) | TED: 10" embossed plastic (4235 - 2,000 pieces/reel) TM: taping (4235) TE: taping (4545) | 3 digits (Unit: μm) 221: 220 μH | K: $\pm 10\%$ M: $\pm 20\%$ |

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) |
|------------------|-----------------|----------------------|------------------------------|---------------------------------------|---------------------------|-------------------------------------|-------------------------|
| 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 | |
| LPC4545CTE1R0M | 1.0 | | | M: ±20% | — | 90.0 | |
| LPC4545CTE1R5M | 1.5 | 65.0 | 0.02 | | | 3.21 | |
| LPC4545CTE2R2M | 2.2 | 50.0 | 0.023 | | | 2.96 | |
| LPC4545CTE3R3M | 3.3 | 40.0 | 0.044 | | | 2.19 | |
| LPC4545CTE4R7M | 4.7 | 35.0 | 0.062 | | | 1.81 | |
| LPC4545CTE6R8M | 6.8 | 25.0 | 0.075 | | | 1.60 | |
| LPC4545CTE100K | 10 | 23.0 | 0.1 | | | 1.43 | |
| LPC4545CTE150K | 15 | 15.0 | 0.15 | | | 1.04 | |
| LPC4545CTE220K | 22 | K: ±10% | — | 13.0 | 0.21 | 0.88 | — |
| LPC4545CTE330K | 33 | | | 10.0 | 0.41 | 0.60 | |
| LPC4545CTE470K | 47 | | | 9.0 | 0.52 | 0.53 | |
| LPC4545CTE680K | 68 | | | 7.5 | 0.67 | 0.49 | |
| LPC4545CTE101K | 100 | | | 5.5 | 0.92 | 0.41 | |
| LPC4545CTE151K | 150 | | | 5.0 | 1.8 | 0.29 | |
| LPC4545CTE221K | 220 | | | 4.0 | 2.25 | 0.26 | |
| LPC4545CTE331K | 330 | | | 2.5 | 4.27 | 0.19 | |
| LPC4545CTE471K | 470 | | | 2.0 | 5.23 | 0.17 | |
| LPC4545CTE681K | 680 | | | 1.8 | 6.67 | 0.15 | |
| LPC4545CTE152K | 1500 | 1.3 | 17.04 | 0.10 | | | |

Operating temperature range: -40°C – +125°C (the self-temperature rise is contained)

Allowable current is a DC Current which causes initial inductance to decrease by 10%. Or coil temperature to rise by 40°C, whichever is smaller

environmental applications

Performance Characteristics

| Parameter | Maximum Δ L | Test Method |
|-----------------------------|-------------|--|
| High Temperature Exposure | ±5% | +125°C ± 2°C, 1000 hours |
| Low Temperature Exposure | ±5% | -40°C, 1000 hours |
| Moisture Exposure | ±5% | +40°C ± 2°C, 90 - 95% RH, 1000 hours |
| Rapid Change of Temperature | ±5% | -40°C (30 minutes)/+125°C (30 minutes), 100 cycles |

Surface Temperature Rise graphs and additional environmental applications can 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.

12/16/09