# Inductors/Transformers Customizable, Surface Mount Torodial, Kool-Mu®, Powdered Iron and MPP Cores

**Note**

- Kool Mu® is a registered trademark of Spang & Company

## FEATURES

- Toroidal design for minimal EMI radiation in DC/DC converter applications
- Designed to support the growing need for efficient DC/DC converters in battery operated equipment
- Two separate windings provide versatility by ability to connect windings in series or parallel
- Dielectric withstanding voltage: 500 $V_{RMS}$, 60 Hz, 5 s
- Operating temperature range: -40 °C to +125 °C
- Supplied on tape and reel and is designed to be pick and place compatible
- Custom versions and turns ratios available. Contact the factory with your specifications
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free
RoHS COMPLIANT
HALOGEN FREE

## STANDARD ELECTRICAL SPECIFICATIONS (in parallel)

| MODEL | STD. IND. (µH) | IND. TOL. | ACTUAL IND. (LOC) (µH) | DCR (Ω) | RATED $I_{DC}$ (40 °C) (A) | IND. AT $I_{DC}$ ($L_{BIAS}$) (30 %) | |
|---|---|---|---|---|---|---|---|
| LPT3535ER1R0LK | 1.0 | ± 15 % | 0.800 | 0.005 | 6.42 | 0.48 at 7.05 | KOOL MU® CORE (A) |
| LPT3535ER1R5LK | 1.5 | ± 15 % | 1.80 | 0.009 | 4.77 | 1.07 at 4.70 | |
| LPT3535ER2R5LK | 2.5 | ± 15 % | 2.45 | 0.011 | 4.45 | 1.46 at 4.03 | |
| LPT3535ER3R3LK | 3.3 | ± 15 % | 3.20 | 0.015 | 3.73 | 1.90 at 3.52 | |
| LPT3535ER5R0LK | 5.0 | ± 15 % | 5.00 | 0.023 | 3.01 | 2.98 at 2.82 | |
| LPT3535ER100LK | 10 | ± 15 % | 11.3 | 0.055 | 1.95 | 6.69 at 1.88 | |
| LPT3535ER150LK | 15 | ± 15 % | 16.2 | 0.081 | 1.59 | 9.64 at 1.57 | |
| LPT3535ER250LK | 25 | ± 15 % | 26.5 | 0.131 | 1.25 | 15.7 at 1.23 | |
| LPT3535ER330LK | 33 | ± 15 % | 33.8 | 0.182 | 1.05 | 20.1 at 1.08 | |
| LPT3535ER500LK | 50 | ± 15 % | 51.2 | 0.280 | 0.84 | 30.5 at 0.88 | |
| LPT3535ER101LK | 100 | ± 15 % | 101 | 0.514 | 0.63 | 60.2 at 0.63 | |
| LPT3535ER151LK | 150 | ± 15 % | 151 | 0.775 | 0.57 | 90.0 at 0.51 | |
| LPT3535ER251LK | 250 | ± 15 % | 252 | 1.279 | 0.40 | 150.0 at 0.40 | |
| LPT3535ER331LK | 330 | ± 15 % | 328 | 1.837 | 0.33 | 195.0 at 0.35 | |
| LPT3535ER1R0LP | 1.0 | ± 15 % | 0.882 | 0.004 | 5.10 | 0.56 at 4.29 | POWDERED IRON (B) |
| LPT3535ER1R5LP | 1.5 | ± 15 % | 1.57 | 0.005 | 4.48 | 0.99 at 3.21 | |
| LPT3535ER2R5LP | 2.5 | ± 15 % | 2.45 | 0.009 | 3.58 | 1.54 at 2.57 | |
| LPT3535ER3R3LP | 3.3 | ± 15 % | 3.53 | 0.013 | 2.96 | 2.22 at 2.14 | |
| LPT3535ER5R0LP | 5.0 | ± 15 % | 4.80 | 0.018 | 2.41 | 3.03 at 1.84 | |
| LPT3535ER100LP | 10 | ± 15 % | 10.8 | 0.043 | 1.58 | 6.81 at 1.22 | |
| LPT3535ER150LP | 15 | ± 15 % | 15.3 | 0.064 | 1.29 | 9.65 at 1.03 | |
| LPT3535ER250LP | 25 | ± 15 % | 25.1 | 0.103 | 1.03 | 15.8 at 0.80 | |
| LPT3535ER330LP | 33 | ± 15 % | 33.5 | 0.147 | 0.85 | 21.1 at 0.70 | |
| LPT3535ER500LP | 50 | ± 15 % | 51.8 | 0.230 | 0.68 | 32.7 at 0.56 | |
| LPT3535ER101LP | 100 | ± 15 % | 104 | 0.424 | 0.51 | 65.2 at 0.40 | |
| LPT3535ER151LP | 150 | ± 15 % | 153 | 0.645 | 0.41 | 96.3 at 0.33 | |
| LPT3535ER251LP | 250 | ± 15 % | 250 | 1.031 | 0.33 | 157.0 at 0.25 | |
| LPT3535ER331LP | 330 | ± 15 % | 330 | 1.463 | 0.27 | 208.0 at 0.22 | |
| LPT3535ER1R0LM | 1.0 | ± 15 % | 0.800 | 0.005 | 6.45 | 0.52 at 7.05 | MPP (C) |
| LPT3535ER1R5LM | 1.5 | ± 15 % | 1.80 | 0.009 | 4.80 | 1.16 at 4.70 | |
| LPT3535ER2R5LM | 2.5 | ± 15 % | 2.45 | 0.011 | 4.46 | 1.58 at 4.03 | |
| LPT3535ER3R3LM | 3.3 | ± 15 % | 3.20 | 0.015 | 3.73 | 2.06 at 3.52 | |
| LPT3535ER5R0LM | 5.0 | ± 15 % | 5.00 | 0.023 | 3.02 | 3.22 at 2.82 | |
| LPT3535ER100LM | 10 | ± 15 % | 11.3 | 0.055 | 1.94 | 7.25 at 1.88 | |
| LPT3535ER150LM | 15 | ± 15 % | 16.2 | 0.081 | 1.59 | 10.43 at 1.57 | |
| LPT3535ER250LM | 25 | ± 15 % | 26.5 | 0.131 | 1.26 | 17.0 at 1.23 | |
| LPT3535ER330LM | 33 | ± 15 % | 33.8 | 0.182 | 1.05 | 21.8 at 1.08 | |
| LPT3535ER500LM | 50 | ± 15 % | 51.2 | 0.280 | 0.84 | 33.0 at 0.88 | |
| LPT3535ER101LM | 100 | ± 15 % | 101 | 0.514 | 0.64 | 97.4 at 0.51 | |
| LPT3535ER151LM | 150 | ± 15 % | 151 | 0.775 | 0.52 | 65.2 at 0.63 | |
| LPT3535ER251LM | 250 | ± 15 % | 252 | 1.279 | 0.40 | 162.0 at 0.51 | |
| LPT3535ER331LM | 330 | ± 15 % | 328 | 1.837 | 0.33 | 211.0 at 0.35 | |

## DESCRIPTION

| LPT | 3535 | 100 µH | ± 15 % | A | ER | e2 |
|---|---|---|---|---|---|---|
| MODEL | SIZE | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | CORE/HEIGHT<br>K = KOOL MU® (A)<br>P = POWDERED IRON (B)<br>M = MPP (C) | PACKAGE CODE<br>ER = reel | JEDEC® LEAD (Pb)-FREE STANDARD |

## GLOBAL PART NUMBER

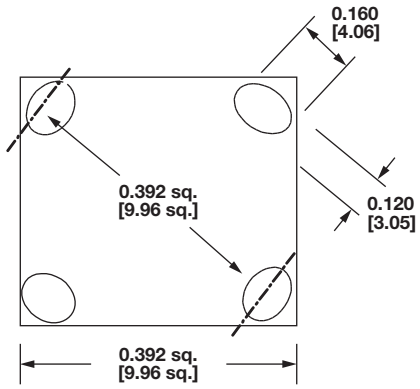
| L | P | T | 3 | 5 | 3 | 5 | E | R | 1 | 0 | 1 | L | K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PRODUCT FAMILY | | | SIZE | | | | PACKAGE CODE | | INDUCTANCE VALUE | | | TOL. | CORE |

**Note**

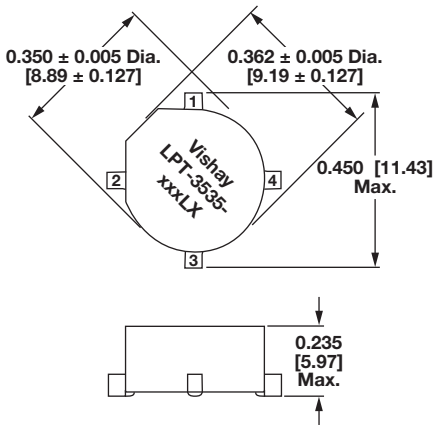
- Series is also available with SnPb terminations by using package code RH for tape and reel (in place of ER)

## DIMENSIONS in inches [millimeters]

### Pad Layout

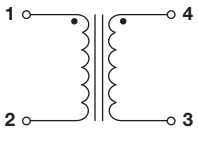



### Dimensional Outline

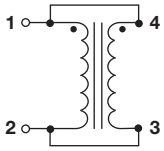



## SCHEMATICS (connection diagrams)

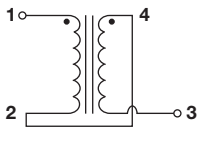
### Transformer




### Parallel




### Series



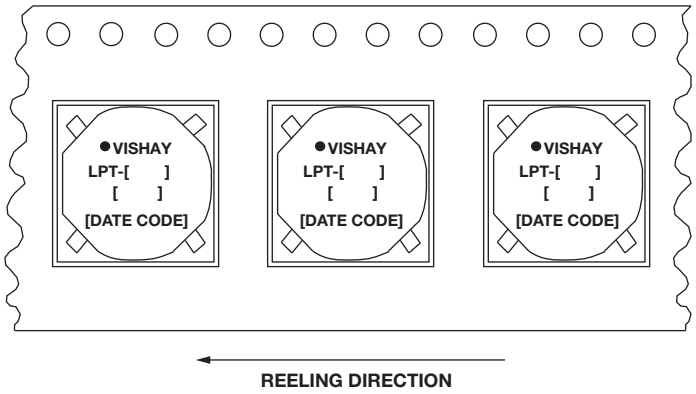

## PART MARKING

- Vishay
- Model number
- Pin 1 identification

## PACKAGING in inches [millimeters]

All embossed carrier tape packaging will be in compliance with the latest revision of EIA-481.

| CARRIER TAPE WIDTH | PITCH | PARTS PER 13" [330.2] REEL |
|---|---|---|
| 0.945 [24.0] | 0.630 [16.0] | 600 |



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