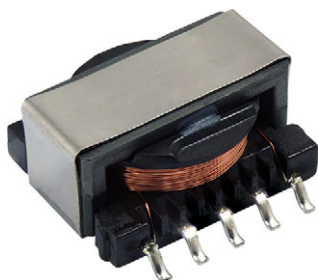


Surface-Mount Transformers / Inductors, Gapped and Ungapped, Custom Configurations Available



FEATURES

- Material categorization:
for definitions of compliance please see
www.vishay.com/doc?99912


RoHS
COMPLIANT

ELECTRICAL SPECIFICATIONS

(multiple winds are connected in parallel)

Inductance Range: 10 μ H to 330 000 μ H, measured at 0.10 V_{RMS} at 10 kHz without DC current, using an HP 4263A or HP 4284A impedance analyzer

DC Resistance Range: 0.03 Ω to 53.7 Ω , measured at +25 $^{\circ}$ C \pm 5 $^{\circ}$ C

Rated Current Range: 3.00 A to 0.06 A

Dielectric Withstanding Voltage: 500 V_{RMS} , 60 Hz, 5 s

| STANDARD ELECTRICAL SPECIFICATIONS | | | | | | |
|------------------------------------|-----------------|---------------|------------------|-----------------------|--|---------------------------------------|
| MODEL | IND. (μ H) | IND. TOL. (%) | SCHEMATIC LETTER | DCR MAX. (Ω) | MAX. RATED DC CURRENT (A) ⁽¹⁾ | SATURATING CURRENT (A) ⁽²⁾ |
| LPE6562ER221NU | 220 | \pm 30 | A | 0.28 | 0.90 | N/A |
| LPE6562ER331NU | 330 | \pm 30 | A | 0.34 | 0.81 | N/A |
| LPE6562ER471NU | 470 | \pm 30 | A | 0.40 | 0.74 | N/A |
| LPE6562ER681NU | 680 | \pm 30 | A | 0.48 | 0.67 | N/A |
| LPE6562ER102NU | 1000 | \pm 30 | A | 0.59 | 0.61 | N/A |
| LPE6562ER152NU | 1500 | \pm 30 | A | 0.72 | 0.55 | N/A |
| LPE6562ER222NU | 2200 | \pm 30 | A | 0.87 | 0.50 | N/A |
| LPE6562ER332NU | 3300 | \pm 30 | A | 1.07 | 0.45 | N/A |
| LPE6562ER472NU | 4700 | \pm 30 | A | 1.27 | 0.41 | N/A |
| LPE6562ER682NU | 6800 | \pm 30 | A | 1.53 | 0.38 | N/A |
| LPE6562ER103NU | 10 000 | \pm 30 | A | 1.86 | 0.34 | N/A |
| LPE6562ER153NU | 15 000 | \pm 30 | A | 2.27 | 0.31 | N/A |
| LPE6562ER223NU | 22 000 | \pm 30 | A | 8.67 | 0.16 | N/A |
| LPE6562ER333NU | 33 000 | \pm 30 | A | 10.6 | 0.14 | N/A |
| LPE6562ER473NU | 47 000 | \pm 30 | A | 12.7 | 0.13 | N/A |
| LPE6562ER683NU | 68 000 | \pm 30 | A | 15.2 | 0.12 | N/A |
| LPE6562ER104NU | 100 000 | \pm 30 | A | 18.5 | 0.11 | N/A |
| LPE6562ER154NU | 150 000 | \pm 30 | A | 37.7 | 0.08 | N/A |
| LPE6562ER224NU | 220 000 | \pm 30 | A | 45.6 | 0.07 | N/A |
| LPE6562ER334NU | 330 000 | \pm 30 | A | 53.7 | 0.06 | N/A |
| LPE6562ER100MG | 10 | \pm 20 | B | 0.03 | 3.09 | 5.055 |
| LPE6562ER150MG | 15 | \pm 20 | B | 0.04 | 2.79 | 4.160 |
| LPE6562ER220MG | 22 | \pm 20 | B | 0.05 | 2.26 | 3.460 |
| LPE6562ER330MG | 33 | \pm 20 | B | 0.08 | 1.81 | 2.840 |
| LPE6562ER470MG | 47 | \pm 20 | D | 0.12 | 1.48 | 2.390 |
| LPE6562ER680MG | 68 | \pm 20 | C | 0.19 | 1.20 | 1.990 |
| LPE6562ER101MG | 100 | \pm 20 | D | 0.29 | 0.98 | 1.650 |
| LPE6562ER151MG | 150 | \pm 20 | E | 0.45 | 0.78 | 1.350 |
| LPE6562ER221MG | 220 | \pm 20 | E | 0.54 | 0.71 | 1.115 |
| LPE6562ER331MG | 330 | \pm 20 | E | 0.84 | 0.57 | 0.912 |
| LPE6562ER471MG | 470 | \pm 20 | E | 1.24 | 0.47 | 0.765 |
| LPE6562ER681MG | 680 | \pm 20 | E | 1.89 | 0.38 | 0.637 |
| LPE6562ER102MG | 1000 | \pm 20 | E | 2.91 | 0.31 | 0.526 |
| LPE6562ER152MG | 1500 | \pm 20 | E | 4.50 | 0.25 | 0.430 |
| LPE6562ER222MG | 2200 | \pm 20 | E | 6.90 | 0.20 | 0.355 |
| LPE6562ER332MG | 3300 | \pm 20 | E | 10.4 | 0.16 | 0.290 |
| LPE6562ER472MG | 4700 | \pm 20 | E | 15.7 | 0.13 | 0.243 |

UNGAPPED MODELS (A)

GAPPED MODELS (B)

Notes

⁽¹⁾ DC current that will create a maximum temperature rise of 30 $^{\circ}$ C when applied at +25 $^{\circ}$ C ambient.

⁽²⁾ DC current that will typically reduce the initial inductance by 20 %.

- UNGAPPED MODELS:** Highest possible inductance with the lowest DCR and highest Q capability. Beneficial in filter, impedance matching and line coupling devices.
- GAPPED MODELS:** Capable of handling large amounts of DC current, tighter inductance tolerance with better temperature stability than ungapped models. Beneficial in DC/DC converters or other circuits carrying DC currents or requiring inductance stability over a temperature range.

DESCRIPTION

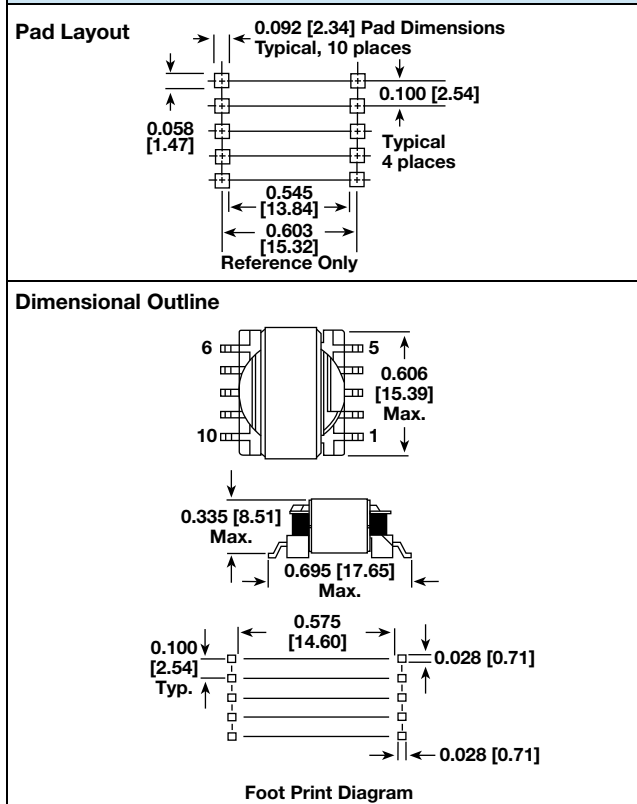
| | | | | | | |
|-------|------|------------------|----------------------|------|--------------|--------------------------------|
| LPE | 6562 | 1000 μ H | $\pm 30\%$ | A | ER | e2 |
| MODEL | SIZE | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | CORE | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |

GLOBAL PART NUMBER

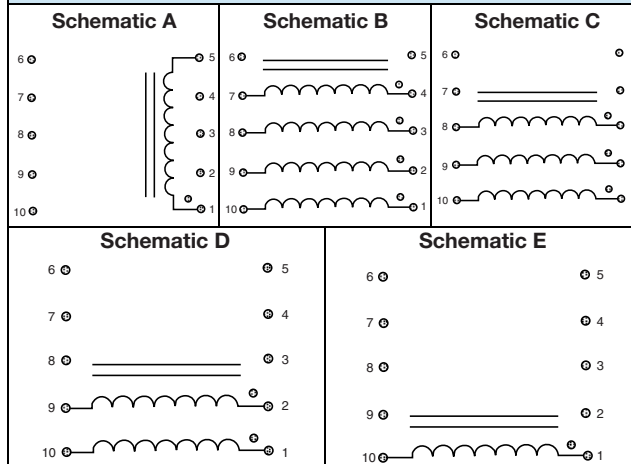
| | | | | | | | | | | | | | |
|----------------|----------|----------|----------|----------|----------|----------|--------------|----------|--------------------|----------|----------|-----------|----------|
| L | P | E | 6 | 5 | 6 | 2 | E | R | 1 | 0 | 2 | N | T |
| PRODUCT FAMILY | | | SIZE | | | | PACKAGE CODE | | INDUCTANCE VALUE | | | TOLERANCE | CORE |
| | | | | | | | | | 102 = 1000 μ H | | | N = 30 % | |

Note

- Series is also available with SnPb terminations by using package code RY for tape and reel (in place of ER) or SM for bulk (in place of EB).

DIMENSIONS in inches [millimeters]

Notes

- Pad layout guidelines per MIL-STD-275E (printed wiring for electronic equipment).
- Tolerances: xx ± 0.01 " [± 0.25 mm]; xxx ± 0.005 " [± 0.12 mm].
- The underside of these components contains metal and thus should not come in contact with active circuit traces.

SCHEMATIC (top view)

Note

- Schematic A is for ungapped LPE series.

ENVIRONMENTAL PERFORMANCE

| TEST | CONDITIONS |
|-----------------------|------------------------------------|
| Thermal cycling | Withstands -55 °C to +125 °C |
| Operating temperature | -55 °C to +125 °C ⁽¹⁾ |
| High humidity | 85 % |
| Soldering heat | Tested to +230 °C |
| Mechanical shock | Per MIL-STD-202, method 213 (100G) |
| Vibration | Per MIL-STD-202, method 204 (20G) |
| Solderability | Per industry standards |

Note

- ⁽¹⁾
- Must be checked in end use application.

PART MARKING

- Vishay Dale
- Date code
- Marking code (suffix of model #)
- Pin 1 indicator

PACKAGING

TAPE SPECIFICATIONS:

Carrier Tape Type: Conductive
Cover Tape Type: Anti-static
Cover Tape Adhesion to Carrier: 40 g \pm 30 g

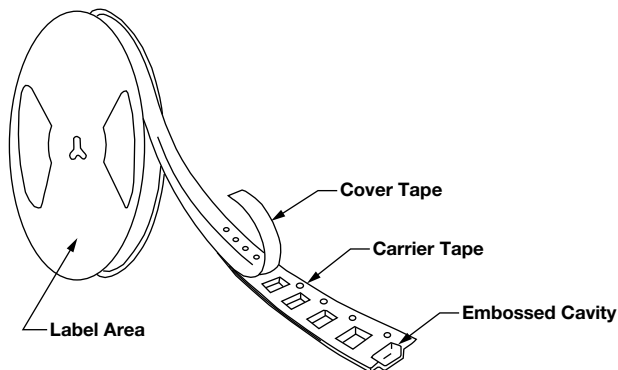
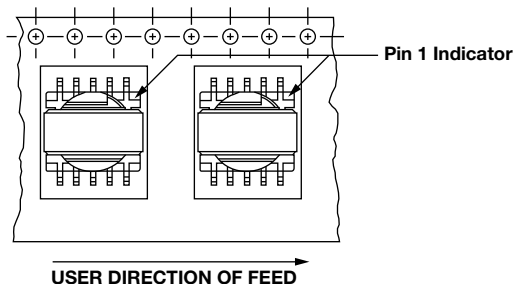
REEL SPECIFICATIONS:

Diameter (flange): 13" [330.2 mm]
Maximum Width (over flanges): 1.197" [30.4 mm]

STANDARDS: All embossed carrier tape packaging will be accomplished in compliance with latest revision of EIA-481 "Taping of Surface Mount Components for Automatic Placement".

| MODEL | TAPE WIDTH | COMPONENT PITCH | UNITS PER 13" REEL |
|---------------|------------|-----------------|--------------------|
| LPE-6562 (RY) | 32 mm | 20 mm | 300 |
| LPE-6562 (ER) | 24 mm | 20 mm | 300 |

Tape and Reel Orientation



Note

- Top view shown with cover tape removed.



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