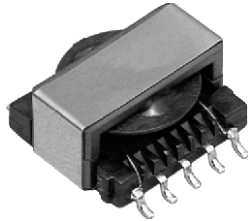


## Surface Mount Transformers/Inductors, Gapped and Ungapped, Custom Configurations Available


**FEATURES**

- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS  
COMPLIANT**
**ELECTRICAL SPECIFICATIONS**

(multiple winds are connected in parallel)

**Inductance Range:** 10  $\mu$ H to 330 000  $\mu$ 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  $\Omega$  to 53.7  $\Omega$ , measured at +25 °C  $\pm$  5 °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. ( $\mu$ H) | IND. TOL.  | SCHEMATIC LETTER | DCR MAX. ( $\Omega$ ) | MAX. RATED DC CURRENT (A) <sup>(1)</sup> | SATURATING CURRENT (A) <sup>(2)</sup> |                     |
|----------------|-----------------|------------|------------------|-----------------------|--|---------------------------------------|---------------------|
| LPE6562ER221NU | 220             | $\pm$ 30 % | A                | 0.28                  | 0.90                                     | N/A                                   | UNGAPPED MODELS (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                                 | GAPPED MODELS (B)   |
| 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                                 |                     |

**Notes**
<sup>(1)</sup> DC current that will create a maximum temperature rise of 30 °C when applied at +25 °C ambient.

<sup>(2)</sup> 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**

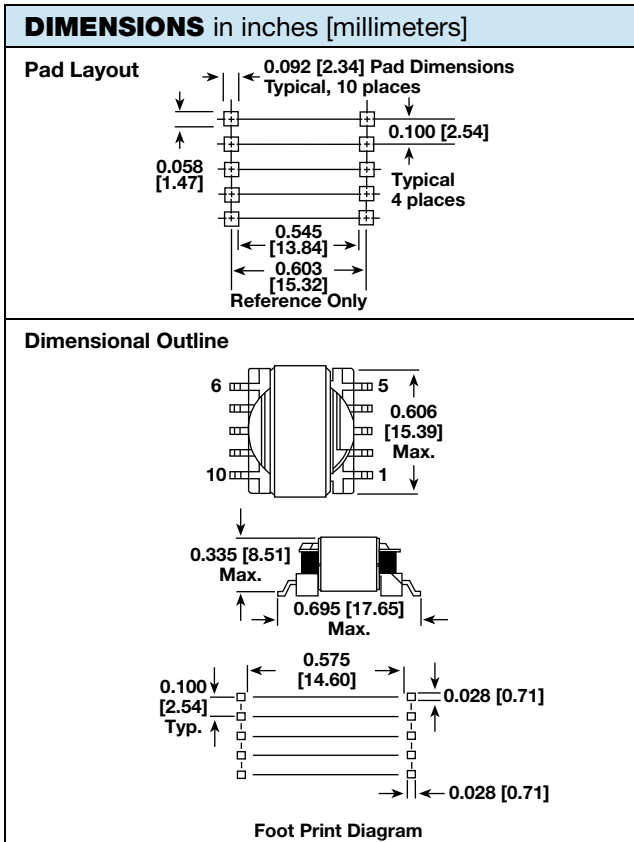
|       |      |                  |                      |      |              |                                |
|-------|------|------------------|----------------------|------|--------------|--------------------------------|
| LPE   | 6562 | 1000 $\mu$ H     | $\pm$ 30 %           | A    | ER           | 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 |   |   | TOL. | CORE |

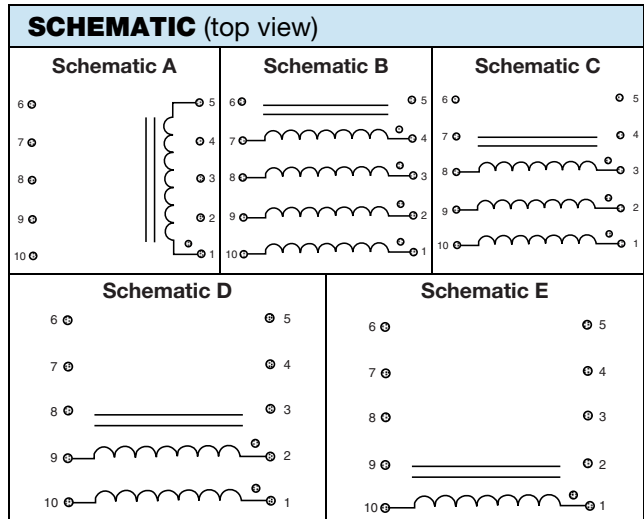
**Note**

- 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).



**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.



**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 <sup>(1)</sup>   |
| 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**

- <sup>(1)</sup> Must be checked in end use application.

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

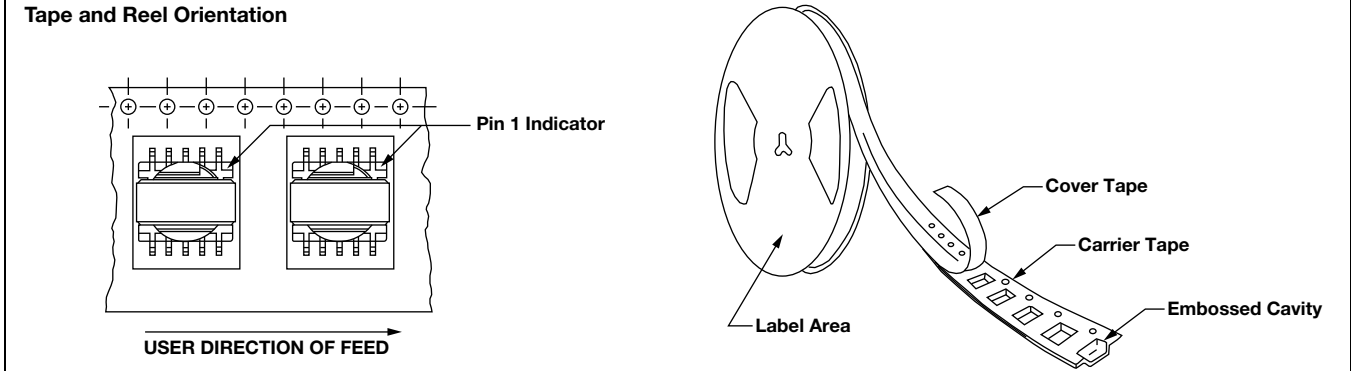
**PACKAGING**

**TAPE SPECIFICATIONS:**  
 Carrier Tape Type: Conductive  
 Cover Tape Type: Anti-static  
 Cover Tape Adhesion to Carrier: 40 g ± 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 | 32 mm      | 20 mm           | 300                |



**Note**

- Top view shown with cover tape removed.



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