

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


**FEATURES**

- Compliant to RoHS directive 2002/95/EC


**ELECTRICAL SPECIFICATIONS**

**Inductance Range:** 10  $\mu$ H to 3900  $\mu$ H, measured at 0.10 V<sub>RMS</sub> at 10 kHz without DC current, using an HP 4263A or 4284A impedance analyzer

**DC Resistance Range:** 0.06  $\Omega$  to 18.0  $\Omega$ , measured at + 25 °C  $\pm$  5 °C

**Rated Current Range:** 1.00 A to 0.06 A

**Dielectric Withstanding Voltage:** 500 V<sub>RMS</sub>, 60 Hz, 5 s

**RoHS  
COMPLIANT**

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>
LPE3325ER100NU	10	$\pm$ 30 %	A	0.06	1.01	N/A
LPE3325ER150NU	15	$\pm$ 30 %	A	0.08	0.91	N/A
LPE3325ER220NU	22	$\pm$ 30 %	A	0.09	0.83	N/A
LPE3325ER330NU	33	$\pm$ 30 %	A	0.11	0.75	N/A
LPE3325ER470NU	47	$\pm$ 30 %	A	0.14	0.69	N/A
LPE3325ER680NU	68	$\pm$ 30 %	A	0.16	0.63	N/A
LPE3325ER101NU	100	$\pm$ 30 %	A	0.20	0.57	N/A
LPE3325ER151NU	150	$\pm$ 30 %	A	0.76	0.29	N/A
LPE3325ER221NU	220	$\pm$ 30 %	A	0.92	0.26	N/A
LPE3325ER331NU	330	$\pm$ 30 %	A	1.13	0.24	N/A
LPE3325ER471NU	470	$\pm$ 30 %	A	1.35	0.22	N/A
LPE3325ER681NU	680	$\pm$ 30 %	A	1.62	0.20	N/A
LPE3325ER102NU	1000	$\pm$ 30 %	A	1.97	0.18	N/A
LPE3325ER152NU	1500	$\pm$ 30 %	A	2.41	0.16	N/A
LPE3325ER222NU	2200	$\pm$ 30 %	A	3.00	0.15	N/A
LPE3325ER332NU	3300	$\pm$ 30 %	A	5.96	0.10	N/A
LPE3325ER392NU	3900	$\pm$ 30 %	A	7.00	0.10	N/A
LPE3325ER100MG	10	$\pm$ 20 %	A	0.22	0.54	1.480
LPE3325ER150MG	15	$\pm$ 20 %	A	0.27	0.48	1.240
LPE3325ER220MG	22	$\pm$ 20 %	A	0.42	0.39	1.050
LPE3325ER330MG	33	$\pm$ 20 %	A	0.65	0.31	0.872
LPE3325ER470MG	47	$\pm$ 20 %	A	0.97	0.26	0.740
LPE3325ER680MG	68	$\pm$ 20 %	A	1.45	0.21	0.622
LPE3325ER101MG	100	$\pm$ 20 %	A	2.22	0.17	0.518
LPE3325ER151MG	150	$\pm$ 20 %	A	3.55	0.13	0.426
LPE3325ER221MG	220	$\pm$ 20 %	A	4.31	0.12	0.354
LPE3325ER331MG	330	$\pm$ 20 %	A	6.72	0.10	0.290
LPE3325ER471MG	470	$\pm$ 20 %	A	9.83	0.08	0.244
LPE3325ER681MG	680	$\pm$ 20 %	A	14.8	0.07	0.204
LPE3325ER102MG	1000	$\pm$ 20 %	A	18.0	0.06	0.169

**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.

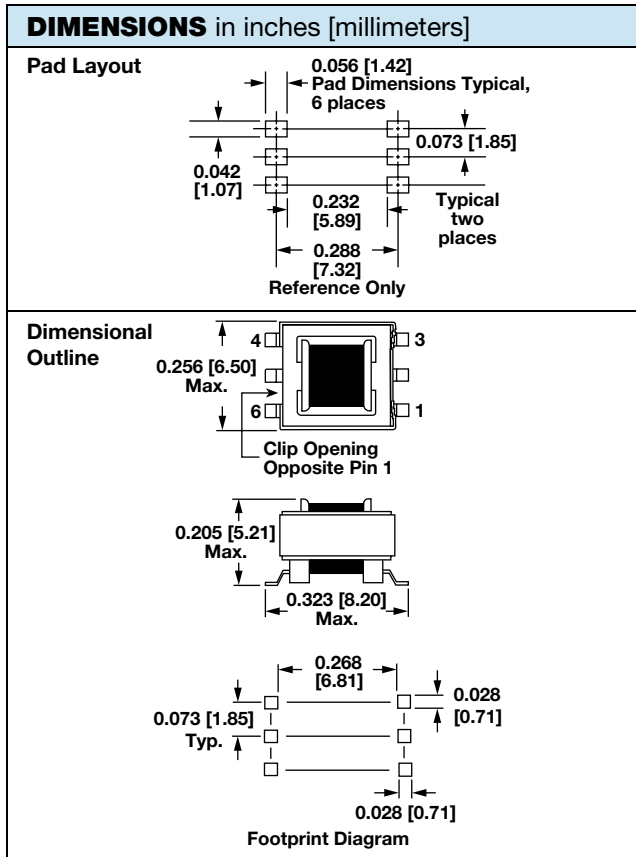
**GAPPED MODELS:** Capable of handling large amounts of DC current, tighter inductance tolerance with better temperature stability than ungapped models. Beneficial in dc-to-dc converters or other circuits carrying DC currents or requiring inductance stability over a temperature range.

DESCRIPTION						
LPE	3325	1000 $\mu$ H	$\pm$ 30 %	A	ER	e2
MODEL	SIZE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	CORE	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD

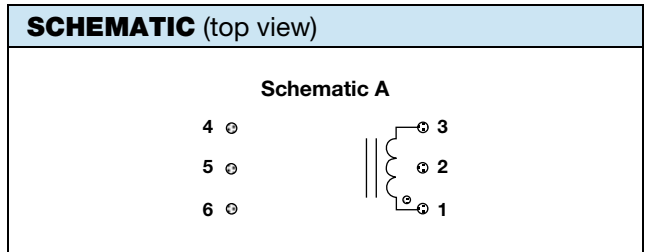
GLOBAL PART NUMBER													
L	P	E	3	3	2	5	E	R	1	0	2	N	U
PRODUCT FAMILY			SIZE			PACKAGE CODE		INDUCTANCE VALUE			TOL.	CORE	

**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].



- Note**
- Schematic A for both gapped and ungapped LPE series

**ENVIRONMENTAL PERFORMANCE**

TEST	CONDITIONS
<b>Thermal Cycling</b>	Withstands - 55 °C to + 125 °C
<b>Operating Temperature</b>	- 55 °C to + 125 °C <sup>(1)</sup>
<b>High Humidity</b>	85 %
<b>Soldering Heat</b>	Tested to + 230 °C
<b>Mechanical Shock</b>	Per MIL-STD-202, method 213 (100G)
<b>Vibration</b>	Per MIL-STD-202, method 204 (20G)
<b>Solderability</b>	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

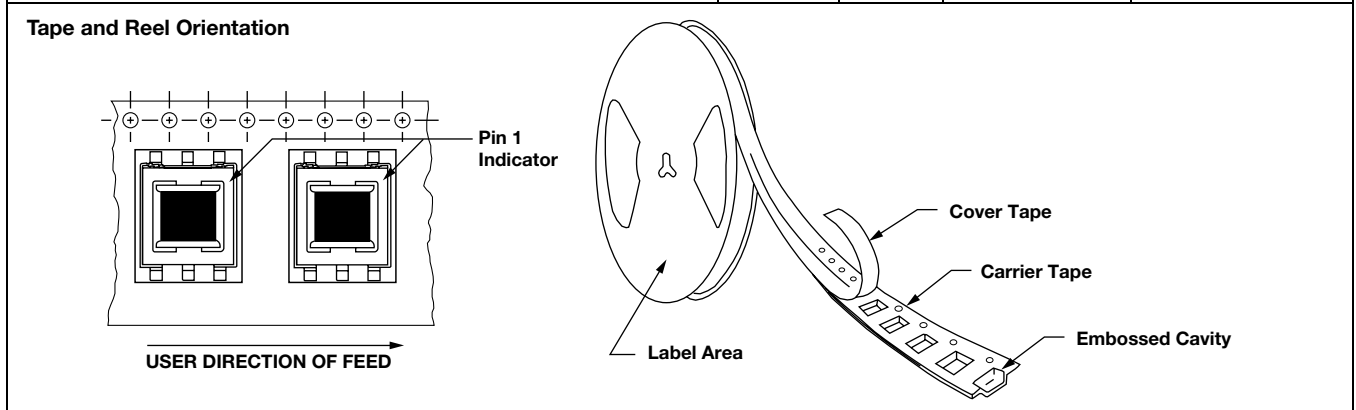
**PACKAGING**

**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-3325	24 mm	12 mm	1000



- Note**
- Top view shown with cover tape removed



## Disclaimer

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.