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



FEATURES

- Compliant to RoHS Directive 2002/95/EC
- Halogen-free according to IEC 61249-2-21 definition

Pb-free
RoHS COMPLIANT
HALOGEN FREE

ELECTRICAL SPECIFICATIONS

Inductance Range: 10 µH to 3900 µH, measured at 0.10 V_{RMS} at 10 kHz without DC current, using an HP 4263A or 4284A impedance analyzer

DC Resistance Range: 0.06 Ω to 18.0 Ω, measured at + 25 °C ± 5 °C

Rated Current Range: 1.00 A to 0.06 A

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

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	IND. (µH)	IND. TOL.	SCHEMATIC LETTER	DCR MAX. (Ω)	MAX. RATED DC CURRENT (A) (1)	SATURATING CURRENT (A) (2)	
LPE3325ER100NU	10	± 30 %	A	0.06	1.01	N/A	UNGAPPED MODELS (A)
LPE3325ER150NU	15	± 30 %	A	0.08	0.91	N/A	
LPE3325ER220NU	22	± 30 %	A	0.09	0.83	N/A	
LPE3325ER330NU	33	± 30 %	A	0.11	0.75	N/A	
LPE3325ER470NU	47	± 30 %	A	0.14	0.69	N/A	
LPE3325ER680NU	68	± 30 %	A	0.16	0.63	N/A	
LPE3325ER101NU	100	± 30 %	A	0.20	0.57	N/A	
LPE3325ER151NU	150	± 30 %	A	0.76	0.29	N/A	
LPE3325ER221NU	220	± 30 %	A	0.92	0.26	N/A	
LPE3325ER331NU	330	± 30 %	A	1.13	0.24	N/A	
LPE3325ER471NU	470	± 30 %	A	1.35	0.22	N/A	
LPE3325ER681NU	680	± 30 %	A	1.62	0.20	N/A	
LPE3325ER102NU	1000	± 30 %	A	1.97	0.18	N/A	
LPE3325ER152NU	1500	± 30 %	A	2.41	0.16	N/A	
LPE3325ER222NU	2200	± 30 %	A	3.00	0.15	N/A	
LPE3325ER332NU	3300	± 30 %	A	5.96	0.10	N/A	
LPE3325ER392NU	3900	± 30 %	A	7.00	0.10	N/A	
LPE3325ER100MG	10	± 20 %	A	0.22	0.54	1.480	GAPPED MODELS (B)
LPE3325ER150MG	15	± 20 %	A	0.27	0.48	1.240	
LPE3325ER220MG	22	± 20 %	A	0.42	0.39	1.050	
LPE3325ER330MG	33	± 20 %	A	0.65	0.31	0.872	
LPE3325ER470MG	47	± 20 %	A	0.97	0.26	0.740	
LPE3325ER680MG	68	± 20 %	A	1.45	0.21	0.622	
LPE3325ER101MG	100	± 20 %	A	2.22	0.17	0.518	
LPE3325ER151MG	150	± 20 %	A	3.55	0.13	0.426	
LPE3325ER221MG	220	± 20 %	A	4.31	0.12	0.354	
LPE3325ER331MG	330	± 20 %	A	6.72	0.10	0.290	
LPE3325ER471MG	470	± 20 %	A	9.83	0.08	0.244	
LPE3325ER681MG	680	± 20 %	A	14.8	0.07	0.204	
LPE3325ER102MG	1000	± 20 %	A	18.0	0.06	0.169	

Notes

(1) DC current that will create a maximum temperature rise of 30 °C when applied at + 25 °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	3325	1000 µH	± 30 %	A	ER	e2
MODEL	SIZE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	CORE	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

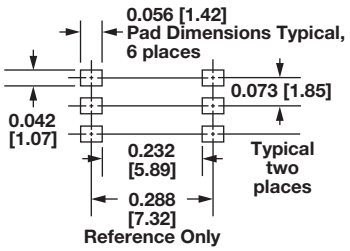
L	P	E	3	3	2	5	E	R	1	0	2	N	U
PRODUCT FAMILY			SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.	CORE

Note

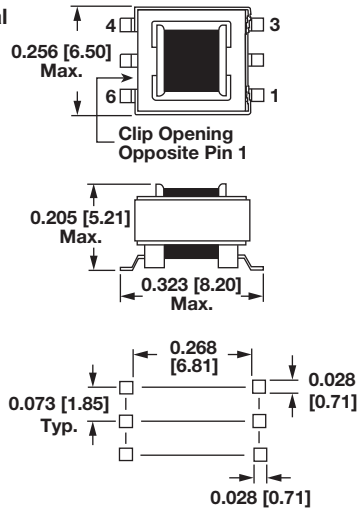
- Series is also available with SnPb terminations by using package code RY for tape and reel (in place of ER) or SM for bulk (in place of EB).

DIMENSIONS in inches [millimeters]

Pad Layout



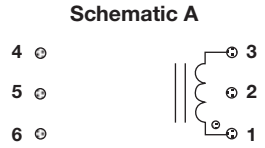
Dimensional Outline



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].

SCHEMATIC (top view)



Note

- Schematic A for both gapped and 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

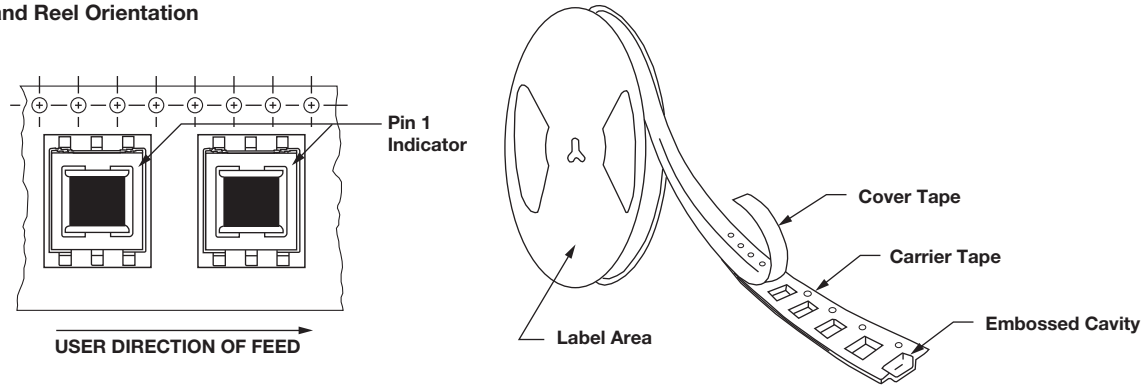
TAPE SPECIFICATIONS:
Carrier Tape Type: Conductive
Cover Tape Type: Anti-static
Cover Tape Adhesion to Carrier: 40 g ± 30 g

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

Tape and Reel Orientation



Note

- Top view shown with cover tape removed

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