



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



#### **FEATURES**

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



#### **ELECTRICAL SPECIFICATIONS**

RoHS (multiple winds are connected in parallel) COMPLIANT 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 ± 5 °C

Rated Current Range: 3.00 A to 0.06 A

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

	IND.	IND.	SCHEMATIC	DCR MAX.	MAX. RATED DC CURRENT	SATURATING CURRENT
MODEL	(µH)	TOL.	LETTER	(Ω)	(A) <sup>(1)</sup>	(A) <sup>(2)</sup>
LPE6562ER221NU	220	± 30 %	Α	0.28	0.90	N/A
LPE6562ER331NU	330	± 30 %	Α	0.34	0.81	N/A
LPE6562ER471NU	470	± 30 %	Α	0.40	0.74	N/A
LPE6562ER681NU	680	± 30 %	Α	0.48	0.67	N/A
LPE6562ER102NU	1000	± 30 %	Α	0.59	0.61	N/A
LPE6562ER152NU	1500	± 30 %	Α	0.72	0.55	
LPE6562ER222NU	2200	± 30 %	Α	0.87	0.50	N/A
_PE6562ER332NU	3300	± 30 %	Α	1.07	0.45	N/A
LPE6562ER472NU	4700	± 30 %	Α	1.27	0.41	N/A li
_PE6562ER682NU	6800	± 30 %	Α	1.53	0.38	N/A N/A N/A N/A N/A
PE6562ER103NU	10 000	± 30 %	Α	1.86	0.34	
PE6562ER153NU	15 000	± 30 %	A	2.27	0.31	N/A
PE6562ER223NU	22 000	± 30 %	Ä	8.67	0.16	N/A I
PE6562ER333NU	33 000	± 30 %	A	10.6	0.14	N/A
PE6562ER473NU	47 000	± 30 %	Ä	12.7	0.13	N/A
PE6562ER683NU	68 000	± 30 %	Ä	15.2	0.12	N/A N/A N/A N/A N/A N/A
PE6562ER104NU	100 000	± 30 %	A	18.5	0.11	N/A
PE6562ER154NU	150 000	± 30 %	Ä	37.7	0.08	N/A
PE6562ER224NU	220 000	± 30 %	Ä	45.6	0.07	N/A
PE6562ER334NU	330 000	± 30 %	Ä	53.7	0.06	N/A
PE6562ER100MG	10	± 20 %	B	0.03	3.09	5.055
PE6562ER150MG	15	± 20 %		0.04	2.79	4.160
PE6562ER220MG	22	± 20 %	l Ř	0.05	2.26	3.460
PE6562ER330MG	33	± 20 %	B B B	0.08	1.81	
PE6562ER470MG	47	± 20 %	D	0.12	1.48	2 300
PE6562ER680MG	68	± 20 %	Č	0.12	1.20	1.990
PE6562ER101MG	100	± 20 %		0.13	0.98	1.650
PE6562ER151MG	150	± 20 %		0.45	0.78	1.350
PE6562ER221MG	220	± 20 %		0.54	0.78 0.71	1.990 1.650 1.350 1.115
PE6562ER331MG	330	± 20 % ± 20 %	-	0.34	0.71 0.57	
_PE6562ER471MG	470	± 20 % ± 20 %		1.24	0.57	0.912
_PE6562ER681MG	680	± 20 % ± 20 %	D E E E	1.24	0.47	0.765
_PE6562ER102MG	1000	± 20 % ± 20 %		2.91	0.36	0.912 0.765 0.637 0.526 0.430
_PE6562ER152MG	1500	± 20 % ± 20 %	E E E E	2.91 4.50	0.31	0.526
PE6562ER222MG	2200	± 20 % ± 20 %		4.50 6.90	0.25 0.20	0.430
_PE6562ER332MG	3300	± 20 %		10.4	0.16	0.290
_PE6562ER472MG	4700	± 20 %		15.7	0.13	0.243

#### 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 linear possible inductance with the lowest DCR and highest Q capability. 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 µH		± 30	<b>)</b> %	Α	ER		e2	
MODEL	SIZE	INDUCTANCE V	/ALUE	INDUCTANCE	TOLERANCE	CORE	PACKAGE COL	DE JEDEC® L	EAD (Pb)-FRE	E STANDARD
GLOE	BAL P	ART NUMBE	R							
	L	РЕ	6	5 6	2	E R	1	0 2	N	Т
P	RODUC	T FAMILY	L	SIZE	PA	CKAGE CO	DDE INDUCT	ANCE VALUE	TOL.	CORE

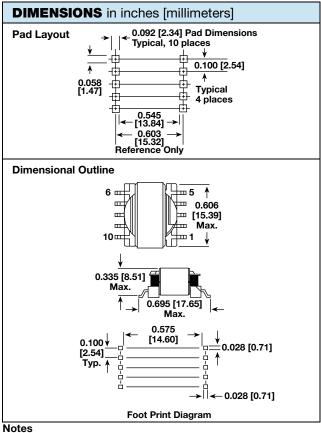
Note

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).

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

SCHEMATIC (top view)						
Schematic A	Schen	natic B	Schematic C			
60 5	60	<b>O</b> 5	6 <b>⊙</b>	<b>O</b> 5		
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Schematic	Schematic E					
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#### 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

(1) Must be checked in end use application.

#### PART MARKING

- Vishay Dale
- Date code

MODEL

Label Area

- Marking code (suffix of model #)

**TAPE** 

WIDTH

- 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:**

**Tape and Reel Orientation** 

Diameter (flange): 13" [330.2 mm]

Maximum Width (over flanges): 1.197" [30.4 mm]

(<del>+</del>)

Pin 1 Indicator

**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"

COMPONENT PITCH

**UNITS PER 13"** 

REEL

**Embossed Cavity** 

LPE-6562	32 mm	20 mm	300
\$ (A)		Cover Tap	pe er Tape

#### Note

Top view shown with cover tape removed.

USER DIRECTION OF FEED

M

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