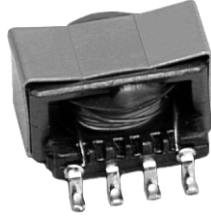


## Surface Mount Transformers/Inductors, Gapped and Ungapped, Custom Configurations Available


**FEATURES**

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


**ELECTRICAL SPECIFICATIONS**

**Inductance Range:** 10  $\mu\text{H}$  to 47 000  $\mu\text{H}$ , measured at 0.10  $V_{\text{RMS}}$  at 10 kHz without DC current, using an HP 4263A or HP 4284A impedance analyzer

**DC Resistance Range:** 0.03  $\Omega$  to 19.1  $\Omega$ , measured at + 25  $^{\circ}\text{C} \pm 5^{\circ}\text{C}$

**Rated Current Range:** 2.00 A to 0.09 A

**Dielectric Withstanding Voltage:** 500  $V_{\text{RMS}}$ , 60 Hz, 5 s

**RoHS COMPLIANT HALOGEN FREE**

**STANDARD ELECTRICAL SPECIFICATIONS**

MODEL	IND. ( $\mu\text{H}$ )	IND. TOL.	SCHEMATIC LETTER	DCR MAX. ( $\Omega$ )	MAX. RATED DC CURRENT (A) <sup>(1)</sup>	SATURATING CURRENT (A) <sup>(2)</sup>	
LPE4841ER101NU	100	$\pm 30\%$	A	0.17	0.88	N/A	UNGAPPED MODELS (A)
LPE4841ER151NU	150	$\pm 30\%$	A	0.21	0.79	N/A	
LPE4841ER221NU	220	$\pm 30\%$	A	0.25	0.721	N/A	
LPE4841ER331NU	330	$\pm 30\%$	A	0.30	0.65	N/A	
LPE4841ER471NU	470	$\pm 30\%$	A	0.36	0.60	N/A	
LPE4841ER681NU	680	$\pm 30\%$	A	0.44	0.54	N/A	
LPE4841ER102NU	1000	$\pm 30\%$	A	0.53	0.49	N/A	
LPE4841ER152NU	1500	$\pm 30\%$	A	0.65	0.45	N/A	
LPE4841ER222NU	2200	$\pm 30\%$	A	0.79	0.40	N/A	
LPE4841ER332NU	3300	$\pm 30\%$	A	1.55	0.29	N/A	
LPE4841ER472NU	4700	$\pm 30\%$	A	1.85	0.26	N/A	
LPE4841ER682NU	6800	$\pm 30\%$	A	4.36	0.17	N/A	
LPE4841ER103NU	10 000	$\pm 30\%$	A	5.29	0.16	N/A	
LPE4841ER153NU	15 000	$\pm 30\%$	A	6.48	0.14	N/A	
LPE4841ER223NU	22 000	$\pm 30\%$	A	13.1	0.10	N/A	
LPE4841ER333NU	33 000	$\pm 30\%$	A	16.0	0.09	N/A	
LPE4841ER473NU	47 000	$\pm 30\%$	A	19.1	0.08	N/A	
LPE4841ER100MG	10	$\pm 20\%$	B	0.03	2.03	2.320	GAPPED MODELS (B)
LPE4841ER150MG	15	$\pm 20\%$	B	0.04	1.84	1.925	
LPE4841ER220MG	22	$\pm 20\%$	C	0.07	1.32	1.610	
LPE4841ER330MG	33	$\pm 20\%$	C	0.09	1.20	1.330	
LPE4841ER470MG	47	$\pm 20\%$	D	0.13	0.98	1.125	
LPE4841ER680MG	68	$\pm 20\%$	D	0.21	0.79	0.941	
LPE4841ER101MG	100	$\pm 20\%$	E	0.35	0.58	0.781	
LPE4841ER151MG	150	$\pm 20\%$	E	0.48	0.52	0.641	
LPE4841ER221MG	220	$\pm 20\%$	E	0.73	0.42	0.532	
LPE4841ER331MG	330	$\pm 20\%$	E	1.14	0.34	0.436	
LPE4841ER471MG	470	$\pm 20\%$	E	1.36	0.31	0.366	
LPE4841ER681MG	680	$\pm 20\%$	E	2.07	0.25	0.305	
LPE4841ER102MG	1000	$\pm 20\%$	E	3.15	0.20	0.252	
LPE4841ER152MG	1500	$\pm 20\%$	E	4.76	0.16	0.206	
LPE4841ER222MG	2200	$\pm 20\%$	E	7.29	0.13	0.170	
LPE4841ER332MG	3300	$\pm 20\%$	E	11.7	0.11	0.139	
LPE4841ER472MG	4700	$\pm 20\%$	E	17.7	0.09	0.117	

**Notes**

<sup>(1)</sup> DC current that will create a maximum temperature rise of 30  $^{\circ}\text{C}$  when applied at + 25  $^{\circ}\text{C}$  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**

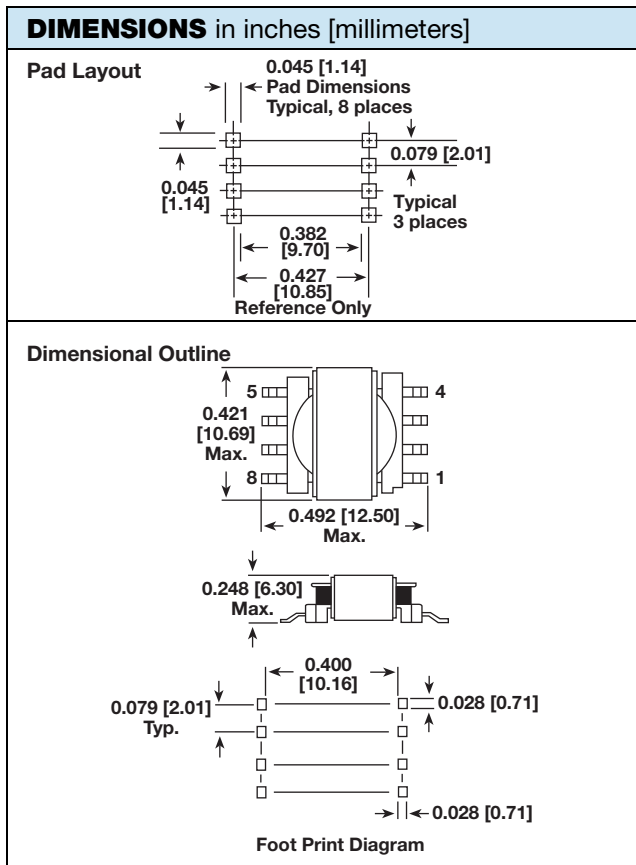
LPE	4841	1000 $\mu\text{H}$	$\pm 30\%$	A	ER	e2
MODEL	SIZE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	CORE	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD

**GLOBAL PART NUMBER**

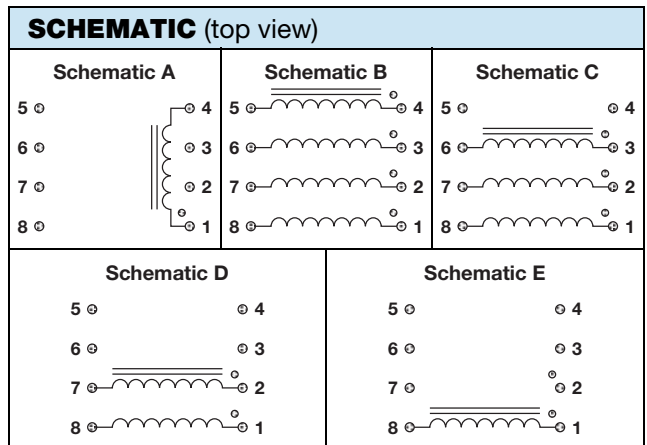
L	P	E	4	8	4	1	E	R	1	0	2	N	U
PRODUCT FAMILY			SIZE			PACKAGE CODE		INDUCTANCE VALUE			TOL.	CORE	

**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:  $xx \pm 0.01''$  [ $\pm 0.25$  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.



- Note**
- Schematic A is for 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

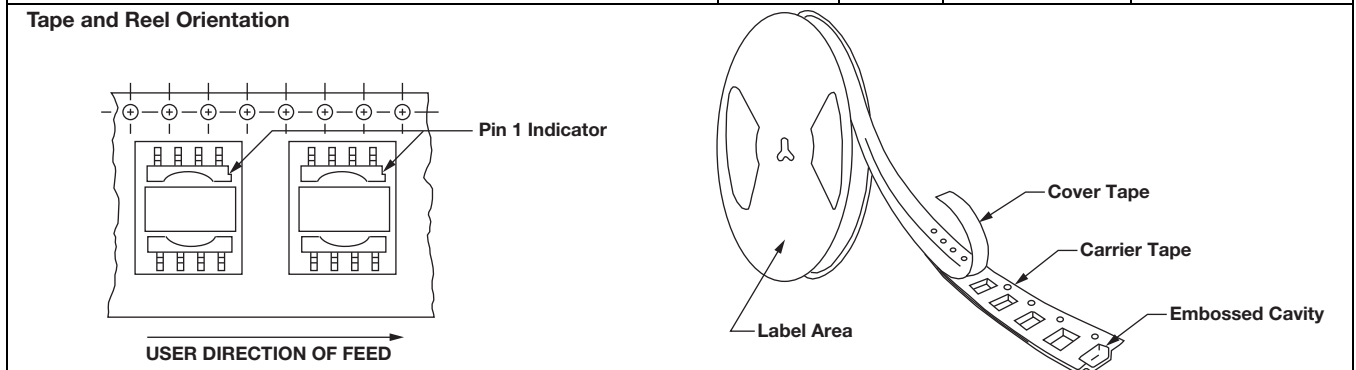
- Note**
- <sup>(1)</sup> Must be checked in end use application

**PART MARKING**

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

**PACKAGING**

<p><b>TAPE SPECIFICATIONS:</b> Carrier Tape Type: Conductive Cover Tape Type: Anti-static Cover Tape Adhesion to Carrier: 40 g ± 30 g</p> <p><b>REEL SPECIFICATIONS:</b> Diameter (flange): 13" [330.2 mm] Maximum Width (over flanges): 1.197" [30.4 mm]</p>	<p><b>STANDARDS:</b> All embossed carrier tape packaging will be accomplished in compliance with latest revision of EIA-481 "Taping of Surface Mount Components for Automatic Placement".</p> <table border="1"> <thead> <tr> <th>MODEL</th> <th>TAPE WIDTH</th> <th>COMPONENT PITCH</th> <th>UNITS PER 13" REEL</th> </tr> </thead> <tbody> <tr> <td>LPE-4841</td> <td>24 mm</td> <td>16 mm</td> <td>600</td> </tr> </tbody> </table>	MODEL	TAPE WIDTH	COMPONENT PITCH	UNITS PER 13" REEL	LPE-4841	24 mm	16 mm	600
MODEL	TAPE WIDTH	COMPONENT PITCH	UNITS PER 13" REEL						
LPE-4841	24 mm	16 mm	600						



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



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