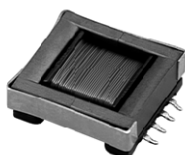


## Surface Mount Transformers/Inductors, Gapped and Ungapped, Custom Configurations Available



### ELECTRICAL SPECIFICATIONS

(Multiple winds are connected in parallel)

**Inductance Range:** 10  $\mu$ H to 150 000  $\mu$ H, measured at 0.10 V RMS at 10 kHz without DC current, using an HP 4263 or HP 4284A impedance analyzer

**DC Resistance Range:** 0.02  $\Omega$  to 46.2  $\Omega$ , measured at + 25 °C  $\pm$  5 °C

**Rated Current Range:** 3.20 amps to 0.17 amps

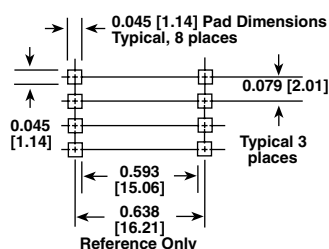
**Dielectric Withstanding Voltage:** 500 V RMS, 60 Hz, 5 seconds



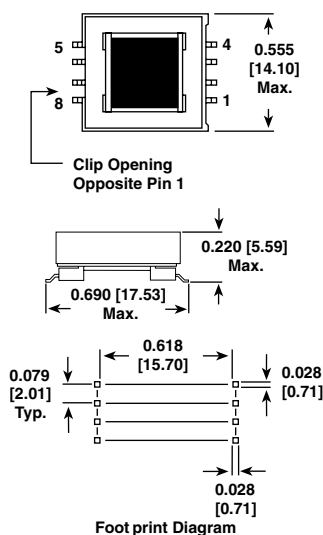
**RoHS**  
COMPLIANT

### DIMENSIONS in inches [millimeters]

#### Pad Layout



#### Dimensional Outline



Foot print Diagram

**NOTE:** 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].

### STANDARD ELECTRICAL SPECIFICATIONS

MODEL	IND. ( $\mu$ H)	IND. TOL.	SCHEMATIC LETTER	DCR MAX. (Ohms)	MAX. RATED* DC CURRENT (Amps)	SATURATING CURRENT** (Amps)
<b>Ungapped Models</b>						
LPE-6855-151NA	150	$\pm$ 30 %	A	0.28	0.84	N/A
LPE-6855-221NA	220	$\pm$ 30 %	A	0.34	0.76	N/A
LPE-6855-331NA	330	$\pm$ 30 %	A	0.41	0.69	N/A
LPE-6855-471NA	470	$\pm$ 30 %	A	0.49	0.63	N/A
LPE-6855-681NA	680	$\pm$ 30 %	A	0.59	0.57	N/A
LPE-6855-102NA	1000	$\pm$ 30 %	A	0.72	0.52	N/A
LPE-6855-152NA	1500	$\pm$ 30 %	A	0.88	0.47	N/A
LPE-6855-222NA	2200	$\pm$ 30 %	A	1.07	0.43	N/A
LPE-6855-332NA	3300	$\pm$ 30 %	A	1.31	0.39	N/A
LPE-6855-472NA	4700	$\pm$ 30 %	A	1.56	0.35	N/A
LPE-6855-682NA	6800	$\pm$ 30 %	A	1.88	0.32	N/A
LPE-6855-103NA	10 000	$\pm$ 30 %	A	7.17	0.16	N/A
LPE-6855-153NA	15 000	$\pm$ 30 %	A	8.78	0.15	N/A
LPE-6855-223NA	22 000	$\pm$ 30 %	A	10.6	0.14	N/A
LPE-6855-333NA	33 000	$\pm$ 30 %	A	13.0	0.12	N/A
LPE-6855-473NA	47 000	$\pm$ 30 %	A	15.5	0.11	N/A
LPE-6855-683NA	68 000	$\pm$ 30 %	A	18.7	0.10	N/A
LPE-6855-104NA	100 000	$\pm$ 30 %	A	37.7	0.07	N/A
LPE-6855-154NA	150 000	$\pm$ 30 %	A	46.2	0.06	N/A
<b>Gapped Models</b>						
LPE-6855-100MB	10	$\pm$ 20 %	B	0.02	3.21	3.375
LPE-6855-150MB	15	$\pm$ 20 %	B	0.03	2.90	2.790
LPE-6855-220MB	22	$\pm$ 20 %	B	0.04	2.64	2.325
LPE-6855-330MB	33	$\pm$ 20 %	B	0.05	2.12	1.910
LPE-6855-470MB	47	$\pm$ 20 %	B	0.08	1.73	1.610
LPE-6855-680MB	68	$\pm$ 20 %	B	0.12	1.41	1.350
LPE-6855-101MB	100	$\pm$ 20 %	B	0.15	1.28	1.120
LPE-6855-151MB	150	$\pm$ 20 %	C	0.23	1.02	0.915
LPE-6855-221MB	220	$\pm$ 20 %	D	0.35	0.83	0.757
LPE-6855-331MB	330	$\pm$ 20 %	D	0.55	0.67	0.620
LPE-6855-471MB	470	$\pm$ 20 %	D	0.82	0.54	0.520
LPE-6855-681MB	680	$\pm$ 20 %	E	1.23	0.45	0.433
LPE-6855-102MB	1000	$\pm$ 20 %	E	1.89	0.36	0.358
LPE-6855-152MB	1500	$\pm$ 20 %	E	2.90	0.29	0.292
LPE-6855-222MB	2200	$\pm$ 20 %	E	4.50	0.23	0.242
LPE-6855-332MB	3300	$\pm$ 20 %	E	5.50	0.21	0.197
LPE-6855-472MB	4700	$\pm$ 20 %	E	8.30	0.17	0.166

\* DC current that will create a maximum temperature rise of 30 °C when applied at + 25 °C ambient. \*\* 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.

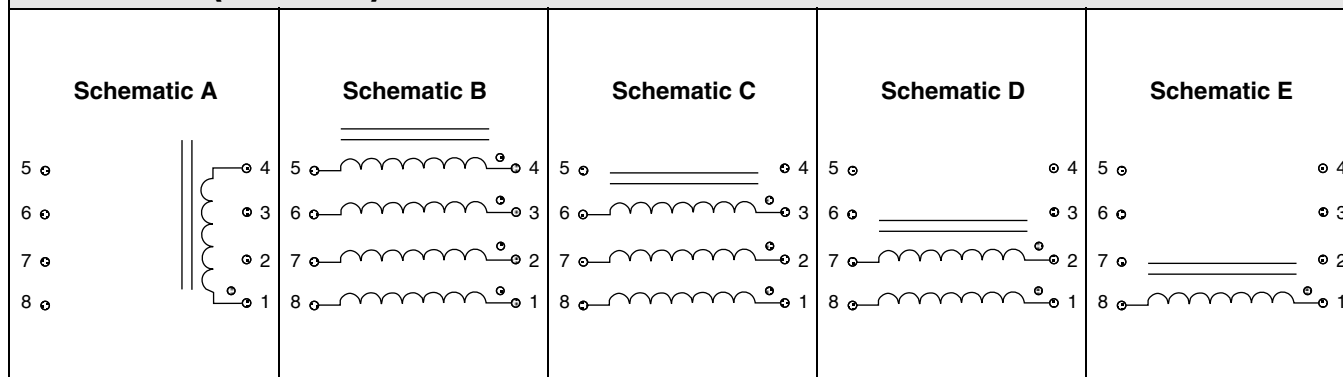
**GAPPED MODELS:** Capable of handling large amounts of DC current, tighter inductance tolerance with better temperature stability than ungapped models. Beneficial in DC to DC converters or other circuits carrying DC currents or requiring inductance stability over a temperature range.

### DESCRIPTION

LPE	6855	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	8	5	5	E	R	1	0	2	N	U
PRODUCT FAMILY			SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.	CORE

**SCHEMATIC (TOP VIEW)**

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
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

\* Must be checked in end use application

**PART MARKING**

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

**PACKAGING****TAPE SPECIFICATIONS:**

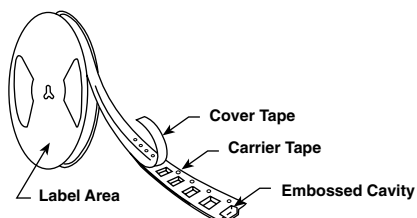
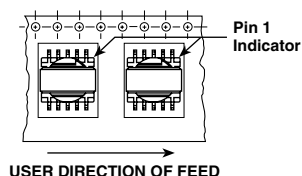
Carrier Tape Type: Conductive  
 Cover Tape Type: Anti-static  
 Cover Tape Adhesion to Carrier: 40 ± 30 grams

**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 INCH REEL
LPE-6855	32 mm	20 mm	450

**Tape and Reel Orientation**



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