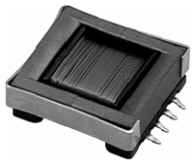
Surface Mount Transformers/Inductors, Gapped and Ungapped, Custom Configurations Available



FEATURES

- Compliant to RoHS directive 2002/95/EC

Pb-free RoHS COMPLIANT

ELECTRICAL SPECIFICATIONS

(Multiple winds are connected in parallel)

Inductance Range: 10 µH to 150 000 µH, measured at 0.10 V_{RMS} at 10 kHz without DC current, using an HP 4263A or HP 4284A impedance analyzer

DC Resistance Range: 0.02 Ω to 46.2 Ω, measured at + 25 °C ± 5 °C

Rated Current Range: 3.20 A to 0.17 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)	
LPE6855ER151NU	150	± 30 %	A	0.28	0.84	N/A	UNGAPPED MODELS (A)
LPE6855ER221NU	220	± 30 %	A	0.34	0.76	N/A	
LPE6855ER331NU	330	± 30 %	A	0.41	0.69	N/A	
LPE6855ER471NU	470	± 30 %	A	0.49	0.63	N/A	
LPE6855ER681NU	680	± 30 %	A	0.59	0.57	N/A	
LPE6855ER102NU	1000	± 30 %	A	0.72	0.52	N/A	
LPE6855ER152NU	1500	± 30 %	A	0.88	0.47	N/A	
LPE6855ER222NU	2200	± 30 %	A	1.07	0.43	N/A	
LPE6855ER332NU	3300	± 30 %	A	1.31	0.39	N/A	
LPE6855ER472NU	4700	± 30 %	A	1.56	0.35	N/A	
LPE6855ER682NU	6800	± 30 %	A	1.88	0.32	N/A	
LPE6855ER103NU	10 000	± 30 %	A	7.17	0.16	N/A	
LPE6855ER153NU	15 000	± 30 %	A	8.78	0.15	N/A	
LPE6855ER223NU	22 000	± 30 %	A	10.6	0.14	N/A	
LPE6855ER333NU	33 000	± 30 %	A	13.0	0.12	N/A	
LPE6855ER473NU	47 000	± 30 %	A	15.5	0.11	N/A	
LPE6855ER683NU	68 000	± 30 %	A	18.7	0.10	N/A	
LPE6855ER104NU	100 000	± 30 %	A	37.7	0.07	N/A	
LPE6855ER154NU	150 000	± 30 %	A	46.2	0.06	N/A	
LPE6855ER100MG	10	± 20 %	B	0.02	3.21	3.375	GAPPED MODELS (B)
LPE6855ER150MG	15	± 20 %	B	0.03	2.90	2.790	
LPE6855ER220MG	22	± 20 %	B	0.04	2.64	2.325	
LPE6855ER330MG	33	± 20 %	B	0.05	2.12	1.910	
LPE6855ER470MG	47	± 20 %	B	0.08	1.73	1.610	
LPE6855ER680MG	68	± 20 %	B	0.12	1.41	1.350	
LPE6855ER101MG	100	± 20 %	B	0.15	1.28	1.120	
LPE6855ER151MG	150	± 20 %	C	0.23	1.02	0.915	
LPE6855ER221MG	220	± 20 %	D	0.35	0.83	0.757	
LPE6855ER331MG	330	± 20 %	D	0.55	0.67	0.620	
LPE6855ER471MG	470	± 20 %	D	0.82	0.54	0.520	
LPE6855ER681MG	680	± 20 %	E	1.23	0.45	0.433	
LPE6855ER102MG	1000	± 20 %	E	1.89	0.36	0.358	
LPE6855ER152MG	1500	± 20 %	E	2.90	0.29	0.292	
LPE6855ER222MG	2200	± 20 %	E	4.50	0.23	0.242	
LPE6855ER332MG	3300	± 20 %	E	5.50	0.21	0.197	
LPE6855ER472MG	4700	± 20 %	E	8.30	0.17	0.166	

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	6855	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	6	8	5	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).

LPE-6855

Vishay Dale

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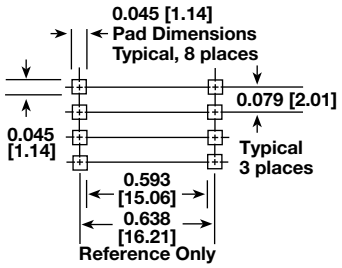
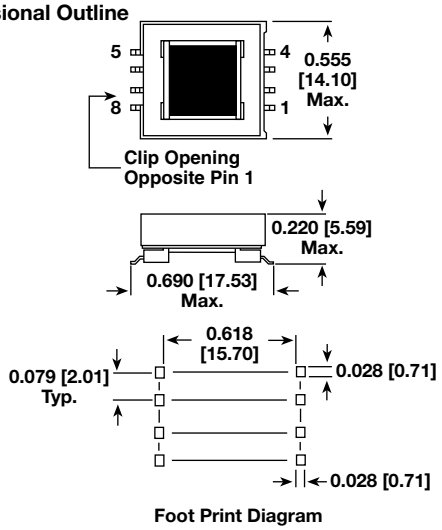
DIMENSIONS in inches [millimeters]

Pad Layout



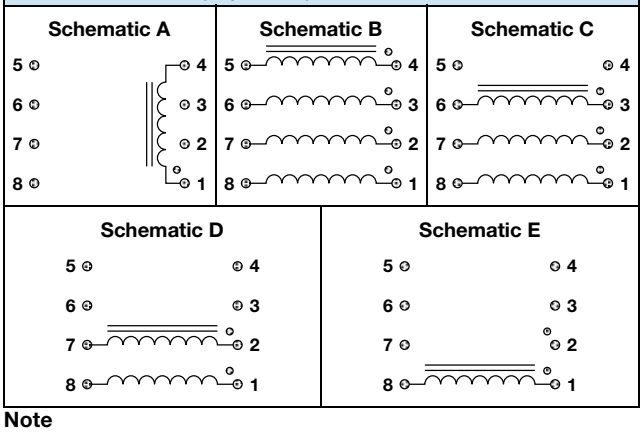
Dimensional Outline



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 is for 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

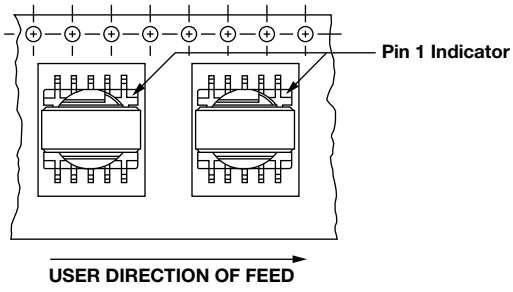
TAPE SPECIFICATIONS:
Carrier Tape Type: Conductive
Cover Tape Type: Anti-static
Cover Tape Adhesion to Carrier: 40 g ± 30 g

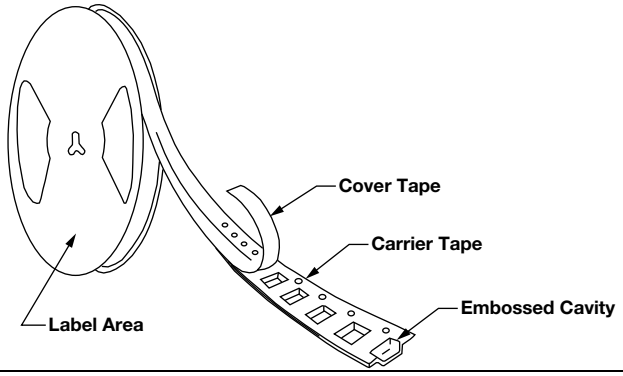
REEL SPECIFICATIONS:
Diameter (flange): 13" [330.2 mm]
Maximum Width (over flanges): 1.197" [30.4 mm]

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-6855	32 mm	20 mm	450

Tape and Reel Orientation





Note

- Top view shown with cover tape removed

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