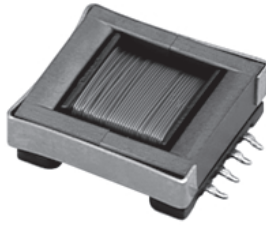


## Surface Mount Transformers/Inductors, Gapped and Ungapped Custom Configurations Available



### ELECTRICAL SPECIFICATIONS

(Multiple winds are connected in parallel)

**Inductance Range:** 10 $\mu$ H to 150000 $\mu$ H, measured at 0.10V RMS @ 10kHz without DC current, using an HP 4263 or HP 4284A impedance analyzer.

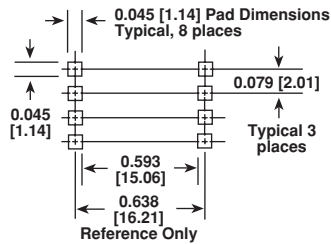
**DC Resistance Range:** 0.02 ohm to 46.2 ohm, measured at + 25°C  $\pm$  5°C.

**Rated Current Range:** 3.20 amps to .17 amps.

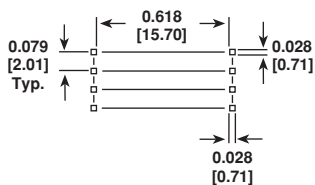
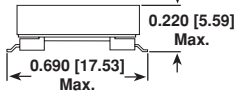
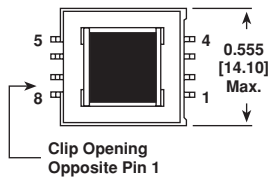
**Dielectric Withstanding Voltage:** 500V RMS, 60Hz, 5 seconds.

### DIMENSIONS in inches (millimeters)

#### Pad Layout



#### Dimensional Outline



Footprint Diagram

**NOTE:** Pad layout guidelines per MIL-STD-275E (printed wiring for electronic equipment). Tolerances: xx  $\pm$  0.01" [ $\pm$  0.25mm]. xxx  $\pm$  0.005" [ $\pm$  0.12mm].

### 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	10000	$\pm$ 30%	A	7.17	0.16	N/A
LPE-6855-153NA	15000	$\pm$ 30%	A	8.78	0.15	N/A
LPE-6855-223NA	22000	$\pm$ 30%	A	10.6	0.14	N/A
LPE-6855-333NA	33000	$\pm$ 30%	A	13.0	0.12	N/A
LPE-6855-473NA	47000	$\pm$ 30%	A	15.5	0.11	N/A
LPE-6855-683NA	68000	$\pm$ 30%	A	18.7	0.10	N/A
LPE-6855-104NA	100000	$\pm$ 30%	A	37.7	0.07	N/A
LPE-6855-154NA	150000	$\pm$ 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.

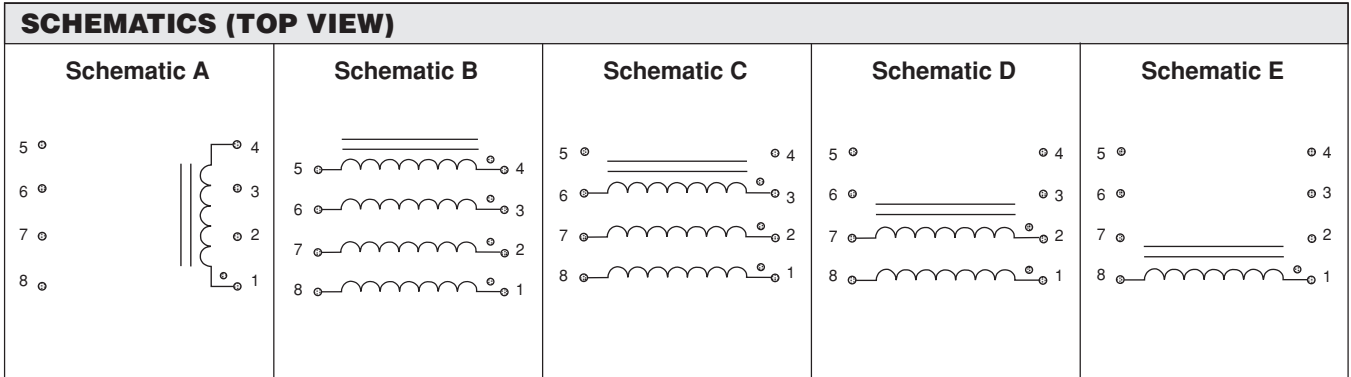
### DESCRIPTION - LPE-6855-102NA

LPE	6855	1000 $\mu$ H	$\pm$ 30%	A
MODEL	SIZE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	CORE

### SAP PART NUMBERING GUIDELINES (INTERNAL)



See the end of this data book for conversion tables



**NOTE:** Schematic A is for Ungapped LPE Series.

<b>ENVIRONMENTAL PERFORMANCE</b>	
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

<b>PART MARKING</b>
<ul style="list-style-type: none"> <li>— Vishay Dale</li> <li>— Date code</li> <li>— Marking code (Suffix of model #)</li> <li>— Pin 1 indicator</li> </ul>

<b>PACKAGING</b>											
<b>TAPE SPECIFICATIONS:</b> Carrier Tape Type: Conductive. Cover Tape Type: Anti-static. Cover Tape Adhesion to Carrier: 40 ± 30 grams.		<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".									
<b>REEL SPECIFICATIONS:</b> Diameter (flange): 13" [330.2mm]. Maximum Width (over flanges): 1.197" [30.4mm].		<table border="1"> <thead> <tr> <th>MODEL</th> <th>TAPE WIDTH</th> <th>COMPONENT PITCH</th> <th>UNITS PER 13 INCH REEL</th> </tr> </thead> <tbody> <tr> <td>LPE-6855</td> <td>32mm</td> <td>20mm</td> <td>450</td> </tr> </tbody> </table>	MODEL	TAPE WIDTH	COMPONENT PITCH	UNITS PER 13 INCH REEL	LPE-6855	32mm	20mm	450	
MODEL	TAPE WIDTH	COMPONENT PITCH	UNITS PER 13 INCH REEL								
LPE-6855	32mm	20mm	450								
<b>Tape and Reel Orientation</b>											

**NOTE:** Top view shown with cover tape removed.