Трансформаторы
Технические характеристики

По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

Россия (495)268-04-70
Киргизия (996)312-96-26-47
Казахстан (7172)727-132

vyh@nt-rt.ru || https://vishay.nt-rt.ru/

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

Pb-free
RoHS COMPLIANT
HALOGEN FREE

ELECTRICAL SPECIFICATIONS

Inductance Range: 10 µH to 3900 µH, measured at 0.10 V_{RMS} at 10 kHz without DC current, using an HP 4263A or 4284A impedance analyzer

DC Resistance Range: 0.06 Ω to 18.0 Ω, measured at + 25 °C ± 5 °C

Rated Current Range: 1.00 A to 0.06 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)	
LPE3325ER100NU	10	± 30 %	A	0.06	1.01	N/A	UNGAPPED MODELS (A)
LPE3325ER150NU	15	± 30 %	A	0.08	0.91	N/A	
LPE3325ER220NU	22	± 30 %	A	0.09	0.83	N/A	
LPE3325ER330NU	33	± 30 %	A	0.11	0.75	N/A	
LPE3325ER470NU	47	± 30 %	A	0.14	0.69	N/A	
LPE3325ER680NU	68	± 30 %	A	0.16	0.63	N/A	
LPE3325ER101NU	100	± 30 %	A	0.20	0.57	N/A	
LPE3325ER151NU	150	± 30 %	A	0.76	0.29	N/A	
LPE3325ER221NU	220	± 30 %	A	0.92	0.26	N/A	
LPE3325ER331NU	330	± 30 %	A	1.13	0.24	N/A	
LPE3325ER471NU	470	± 30 %	A	1.35	0.22	N/A	
LPE3325ER681NU	680	± 30 %	A	1.62	0.20	N/A	
LPE3325ER102NU	1000	± 30 %	A	1.97	0.18	N/A	
LPE3325ER152NU	1500	± 30 %	A	2.41	0.16	N/A	
LPE3325ER222NU	2200	± 30 %	A	3.00	0.15	N/A	
LPE3325ER332NU	3300	± 30 %	A	5.96	0.10	N/A	
LPE3325ER392NU	3900	± 30 %	A	7.00	0.10	N/A	
LPE3325ER100MG	10	± 20 %	A	0.22	0.54	1.480	GAPPED MODELS (B)
LPE3325ER150MG	15	± 20 %	A	0.27	0.48	1.240	
LPE3325ER220MG	22	± 20 %	A	0.42	0.39	1.050	
LPE3325ER330MG	33	± 20 %	A	0.65	0.31	0.872	
LPE3325ER470MG	47	± 20 %	A	0.97	0.26	0.740	
LPE3325ER680MG	68	± 20 %	A	1.45	0.21	0.622	
LPE3325ER101MG	100	± 20 %	A	2.22	0.17	0.518	
LPE3325ER151MG	150	± 20 %	A	3.55	0.13	0.426	
LPE3325ER221MG	220	± 20 %	A	4.31	0.12	0.354	
LPE3325ER331MG	330	± 20 %	A	6.72	0.10	0.290	
LPE3325ER471MG	470	± 20 %	A	9.83	0.08	0.244	
LPE3325ER681MG	680	± 20 %	A	14.8	0.07	0.204	
LPE3325ER102MG	1000	± 20 %	A	18.0	0.06	0.169	

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	3325	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	3	3	2	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).

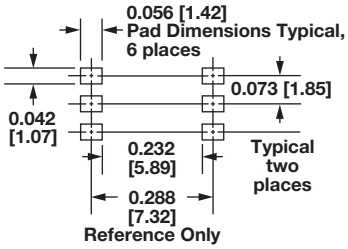
LPE-3325

Vishay Dale

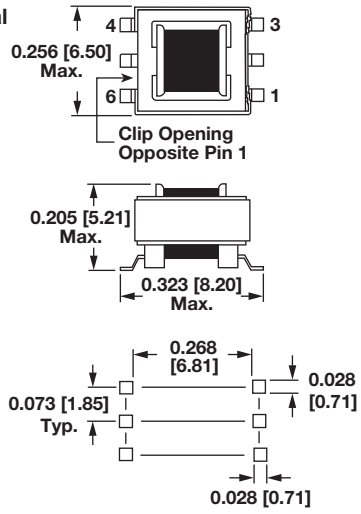
Surface Mount Transformers/Inductors,
Gapped and Ungapped, Custom Configurations Available

DIMENSIONS in inches [millimeters]

Pad Layout



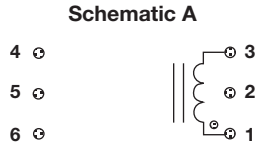
Dimensional Outline



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 for both gapped and 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

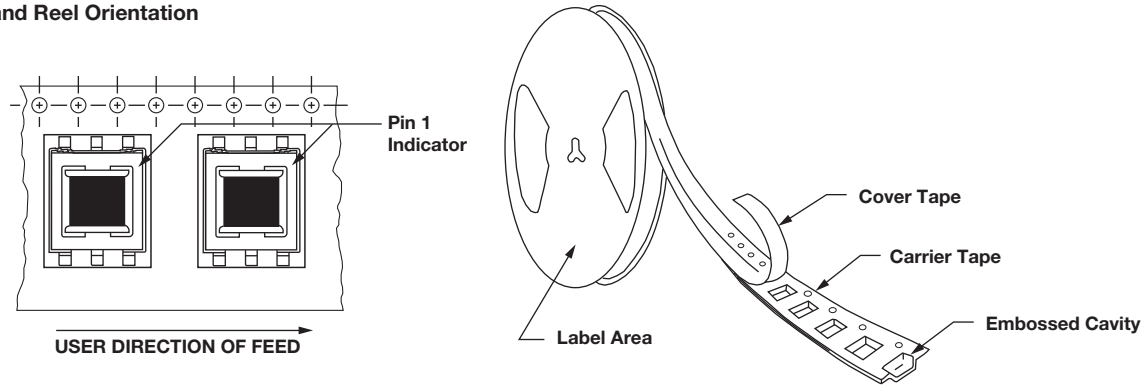
TAPE SPECIFICATIONS:
Carrier Tape Type: Conductive
Cover Tape Type: Anti-static
Cover Tape Adhesion to Carrier: 40 g ± 30 g

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-3325	24 mm	12 mm	1000

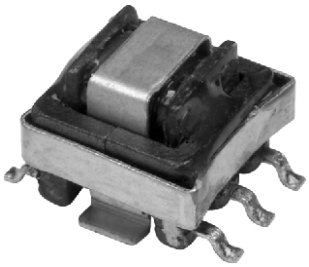
Tape and Reel Orientation



Note

- Top view shown with cover tape removed

Surface Mount Current Sense Transformers



FEATURES

- Surface mount design
- Compatible with surface mount process temperatures
- Designed for switching supply applications
- Optimal performance at 100 kHz and above
- Five standard turns ratios
- Custom designs available

Pb-free
RoHS COMPLIANT

APPLICATIONS

- Switching power supplies
- AC current detection
- Output supply for control circuitry
- Appliances
- Medical equipment
- Office equipment

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	TURNS RATIO	SECONDARY		PRIMARY AMPERES
		IND. AT 100 kHz, 0.1 V MIN. (µH)	DCR MAX. (Ω)	
LPE-3325-CST030	30	180	1.00	6
LPE-3325-CST040	40	320	1.35	6
LPE-3325-CST050	50	500	2.50	6
LPE-3325-CST070	70	980	4.71	6
LPE-3325-CST125	125	3000	7.70	6

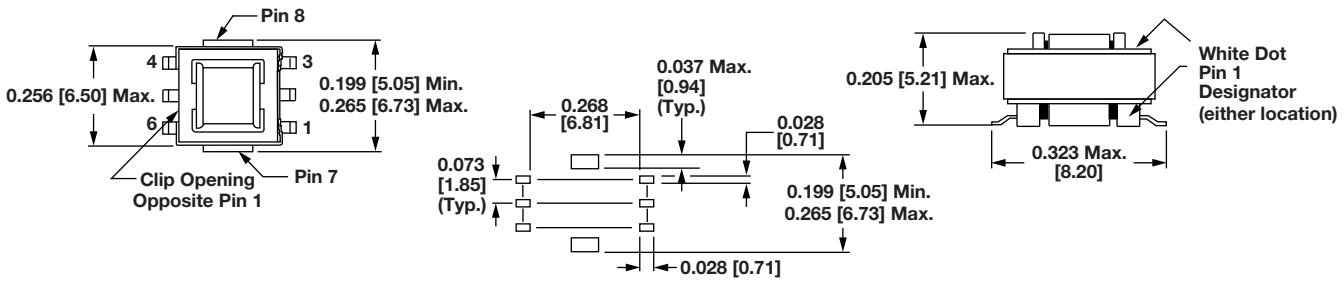
DESCRIPTION

LPE	3325	125	ER	e2
MODEL	SERIES	TURNS RATIO	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD

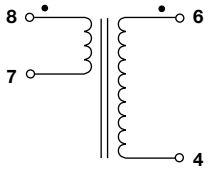
GLOBAL PART NUMBER

L	P	E	3	3	2	5	E	R	1	2	5	C	S	T
PRODUCT FAMILY			SIZE				PACKAGE CODE		TURNS RATIO			SERIES		

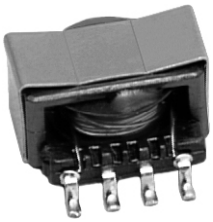
DIMENSIONS in inches [millimeters]



SCHEMATIC



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



Pb-free
RoHS COMPLIANT
HALOGEN FREE

ELECTRICAL SPECIFICATIONS

Inductance Range: 10 µH to 47 000 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: 0.03 Ω to 19.1 Ω, measured at +25 °C ± 5 °C
Rated Current Range: 2.00 A to 0.09 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)	
LPE4841ER101NU	100	± 30 %	A	0.17	0.88	N/A	UNGAPPED MODELS (A)
LPE4841ER151NU	150	± 30 %	A	0.21	0.79	N/A	
LPE4841ER221NU	220	± 30 %	A	0.25	0.721	N/A	
LPE4841ER331NU	330	± 30 %	A	0.30	0.65	N/A	
LPE4841ER471NU	470	± 30 %	A	0.36	0.60	N/A	
LPE4841ER681NU	680	± 30 %	A	0.44	0.54	N/A	
LPE4841ER102NU	1000	± 30 %	A	0.53	0.49	N/A	
LPE4841ER152NU	1500	± 30 %	A	0.65	0.45	N/A	
LPE4841ER222NU	2200	± 30 %	A	0.79	0.40	N/A	
LPE4841ER332NU	3300	± 30 %	A	1.55	0.29	N/A	
LPE4841ER472NU	4700	± 30 %	A	1.85	0.26	N/A	
LPE4841ER682NU	6800	± 30 %	A	4.36	0.17	N/A	
LPE4841ER103NU	10 000	± 30 %	A	5.29	0.16	N/A	
LPE4841ER153NU	15 000	± 30 %	A	6.48	0.14	N/A	
LPE4841ER223NU	22 000	± 30 %	A	13.1	0.10	N/A	
LPE4841ER333NU	33 000	± 30 %	A	16.0	0.09	N/A	
LPE4841ER473NU	47 000	± 30 %	A	19.1	0.08	N/A	
LPE4841ER100MG	10	± 20 %	B	0.03	2.03	2.320	GAPPED MODELS (B)
LPE4841ER150MG	15	± 20 %	B	0.04	1.84	1.925	
LPE4841ER220MG	22	± 20 %	C	0.07	1.32	1.610	
LPE4841ER330MG	33	± 20 %	C	0.09	1.20	1.330	
LPE4841ER470MG	47	± 20 %	D	0.13	0.98	1.125	
LPE4841ER680MG	68	± 20 %	D	0.21	0.79	0.941	
LPE4841ER101MG	100	± 20 %	E	0.35	0.58	0.781	
LPE4841ER151MG	150	± 20 %	E	0.48	0.52	0.641	
LPE4841ER221MG	220	± 20 %	E	0.73	0.42	0.532	
LPE4841ER331MG	330	± 20 %	E	1.14	0.34	0.436	
LPE4841ER471MG	470	± 20 %	E	1.36	0.31	0.366	
LPE4841ER681MG	680	± 20 %	E	2.07	0.25	0.305	
LPE4841ER102MG	1000	± 20 %	E	3.15	0.20	0.252	
LPE4841ER152MG	1500	± 20 %	E	4.76	0.16	0.206	
LPE4841ER222MG	2200	± 20 %	E	7.29	0.13	0.170	
LPE4841ER332MG	3300	± 20 %	E	11.7	0.11	0.139	
LPE4841ER472MG	4700	± 20 %	E	17.7	0.09	0.117	

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	4841	1000 µH	± 30 %	A	ER	e2
MODEL	SIZE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	CORE	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD

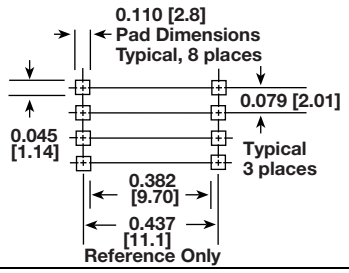
GLOBAL PART NUMBER

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

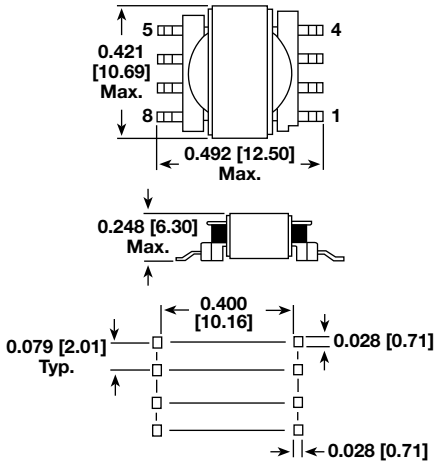
Note
- Series is also available with SnPb terminations by using package code RY for tape and reel (in place of ER) or SM for bulk (in place of EB)

DIMENSIONS in inches [millimeters]

Pad Layout



Dimensional Outline

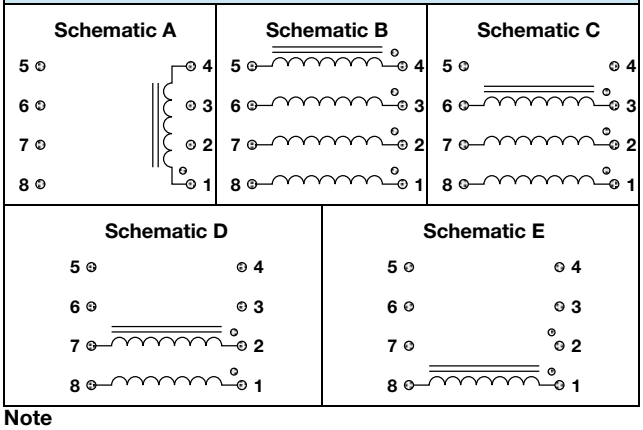


Foot Print Diagram

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]
- The underside of these components contains metal and thus should not come in contact with active circuit traces

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

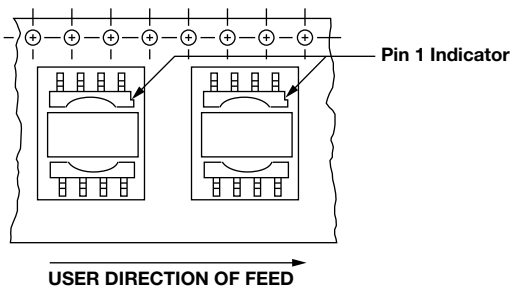
TAPE SPECIFICATIONS:
Carrier tape type: conductive
Cover tape type: anti-static
Cover tape adhesion to carrier: 40 g ± 30 g

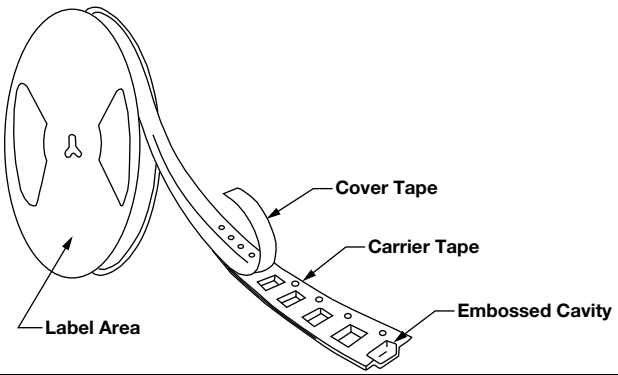
REEL SPECIFICATIONS:
Diameter (flange): 13" [330.2 mm]
Maximum width (over flanges): 1.197" [30.4 mm]

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-4841	24 mm	16 mm	600

Tape and Reel Orientation



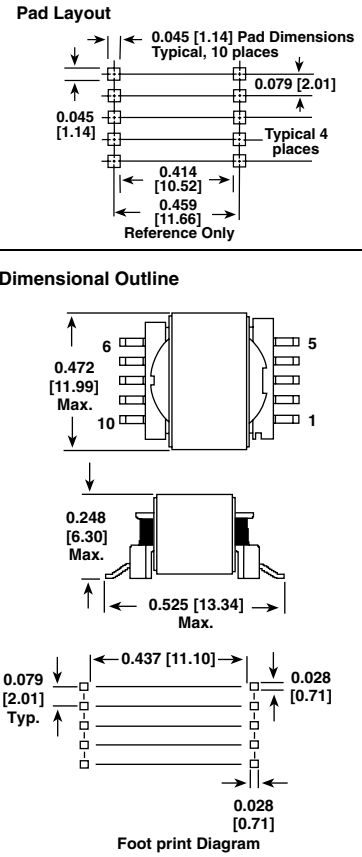


Note

- Top view shown with cover tape removed

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

DIMENSIONS in inches [millimeters]



NOTE: 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]

The underside of these components contains metal and thus should not come in contact with active circuit traces.

ELECTRICAL SPECIFICATIONS

(Multiple winds are connected in parallel)

Inductance Range: 10 µH to 68 000 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: 0.03 Ω to 24.1 Ω, measured at + 25 °C ± 5 °C

Rated Current Range: 2.29 amps to 0.07 amps

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

Pb-free

RoHS COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	IND. (µH)	IND. TOL.	SCHEMATIC LETTER	DCR MAX. (Ohms)	MAX. RATED* DC CURRENT (Amps)	SATURATING CURRENT** (Amps)
Ungapped Models (A)						
LPE5047ER151NU	150	± 30 %	A	0.20	0.79	N/A
LPE5047ER221NU	220	± 30 %	A	0.24	0.72	N/A
LPE5047ER331NU	330	± 30 %	A	0.29	0.65	N/A
LPE5047ER471NU	470	± 30 %	A	0.35	0.59	N/A
LPE5047ER681NU	680	± 30 %	A	0.42	0.54	N/A
LPE5047ER102NU	1000	± 30 %	A	0.51	0.49	
LPE5047ER152NU	1500	± 30 %	A	0.63	0.44	N/A
LPE5047ER222NU	2200	± 30 %	A	0.76	0.40	N/A
LPE5047ER332NU	3300	± 30 %	A	1.00	0.35	N/A
LPE5047ER472NU	4700	± 30 %	A	2.24	0.24	N/A
LPE5047ER682NU	6800	± 30 %	A	2.70	0.21	N/A
LPE5047ER103NU	10 000	± 30 %	A	3.27	0.19	N/A
LPE5047ER153NU	15 000	± 30 %	A	6.26	0.14	N/A
LPE5047ER223NU	22 000	± 30 %	A	7.58	0.13	N/A
LPE5047ER333NU	33 000	± 30 %	A	9.50	0.11	N/A
LPE5047ER473NU	47 000	± 30 %	A	18.5	0.08	N/A
LPE5047ER683NU	68 000	± 30 %	A	24.1	0.07	N/A
Gapped Models (B)						
LPE5047ER100MG	10	± 20 %	B	0.03	2.29	2.690
LPE5047ER150MG	15	± 20 %	B	0.04	2.07	2.230
LPE5047ER220MG	22	± 20 %	B	0.05	1.68	1.860
LPE5047ER330MG	33	± 20 %	C	0.09	1.35	1.540
LPE5047ER470MG	47	± 20 %	D	0.13	1.11	1.300
LPE5047ER680MG	68	± 20 %	D	0.15	1.01	1.085
LPE5047ER101MG	100	± 20 %	D	0.24	0.81	0.900
LPE5047ER151MG	150	± 20 %	D	0.37	0.65	0.740
LPE5047ER221MG	220	± 20 %	E	0.55	0.53	0.610
LPE5047ER331MG	330	± 20 %	E	0.85	0.43	0.500
LPE5047ER471MG	470	± 20 %	E	1.29	0.35	0.420
LPE5047ER681MG	680	± 20 %	E	1.96	0.28	0.350
LPE5047ER102MG	1000	± 20 %	E	2.38	0.26	0.290
LPE5047ER152MG	1500	± 20 %	E	3.66	0.21	0.240
LPE5047ER222MG	2200	± 20 %	E	5.47	0.17	0.195
LPE5047ER332MG	3300	± 20 %	E	8.48	0.14	0.160
LPE5047ER472MG	4700	± 20 %	E	13.2	0.11	0.135

* 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	5047	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	5	0	4	7	E	R	1	0	2	N	U
PRODUCT FAMILY			SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.	CORE

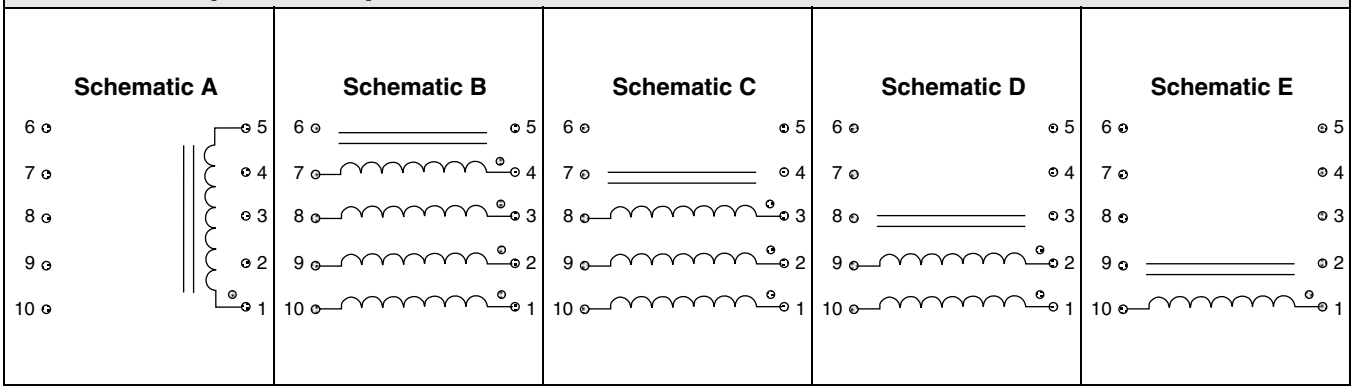
NOTE Series is also available with SnPb terminations by using package code RY for tape and reel (in place of ER) or SM for bulk (in place of EB).

LPE-5047

Vishay Dale

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

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

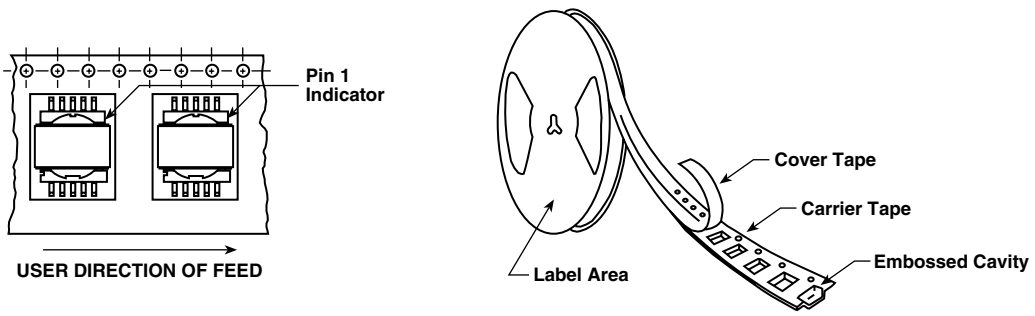
TAPE SPECIFICATIONS:
Carrier Tape Type: Conductive
Cover Tape Type: Anti-static
Cover Tape Adhesion to Carrier: 40 ± 30 grams

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".

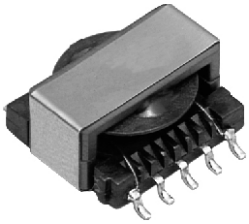
MODEL	TAPE WIDTH	COMPONENT PITCH	UNITS PER 13 INCH REEL
LPE-5047	24 mm	16 mm	600

Tape and Reel Orientation



NOTE: Top view shown with cover tape removed

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



Pb-free

RoHS COMPLIANT

ELECTRICAL SPECIFICATIONS

(multiple winds are connected in parallel)

Inductance Range: 10 µH to 330 000 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: 0.03 Ω to 53.7 Ω, measured at +25 °C ± 5 °C

Rated Current Range: 3.00 A to 0.06 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)	
LPE6562ER221NU	220	± 30 %	A	0.28	0.90	N/A	UNGAPPED MODELS (A)
LPE6562ER331NU	330	± 30 %	A	0.34	0.81	N/A	
LPE6562ER471NU	470	± 30 %	A	0.40	0.74	N/A	
LPE6562ER681NU	680	± 30 %	A	0.48	0.67	N/A	
LPE6562ER102NU	1000	± 30 %	A	0.59	0.61	N/A	
LPE6562ER152NU	1500	± 30 %	A	0.72	0.55	N/A	
LPE6562ER222NU	2200	± 30 %	A	0.87	0.50	N/A	
LPE6562ER332NU	3300	± 30 %	A	1.07	0.45	N/A	
LPE6562ER472NU	4700	± 30 %	A	1.27	0.41	N/A	
LPE6562ER682NU	6800	± 30 %	A	1.53	0.38	N/A	
LPE6562ER103NU	10 000	± 30 %	A	1.86	0.34	N/A	
LPE6562ER153NU	15 000	± 30 %	A	2.27	0.31	N/A	
LPE6562ER223NU	22 000	± 30 %	A	8.67	0.16	N/A	
LPE6562ER333NU	33 000	± 30 %	A	10.6	0.14	N/A	
LPE6562ER473NU	47 000	± 30 %	A	12.7	0.13	N/A	
LPE6562ER683NU	68 000	± 30 %	A	15.2	0.12	N/A	
LPE6562ER104NU	100 000	± 30 %	A	18.5	0.11	N/A	
LPE6562ER154NU	150 000	± 30 %	A	37.7	0.08	N/A	
LPE6562ER224NU	220 000	± 30 %	A	45.6	0.07	N/A	
LPE6562ER334NU	330 000	± 30 %	A	53.7	0.06	N/A	
LPE6562ER100MG	10	± 20 %	B	0.03	3.09	5.055	GAPPED MODELS (B)
LPE6562ER150MG	15	± 20 %	B	0.04	2.79	4.160	
LPE6562ER220MG	22	± 20 %	B	0.05	2.26	3.460	
LPE6562ER330MG	33	± 20 %	B	0.08	1.81	2.840	
LPE6562ER470MG	47	± 20 %	D	0.12	1.48	2.390	
LPE6562ER680MG	68	± 20 %	C	0.19	1.20	1.990	
LPE6562ER101MG	100	± 20 %	D	0.29	0.98	1.650	
LPE6562ER151MG	150	± 20 %	E	0.45	0.78	1.350	
LPE6562ER221MG	220	± 20 %	E	0.54	0.71	1.115	
LPE6562ER331MG	330	± 20 %	E	0.84	0.57	0.912	
LPE6562ER471MG	470	± 20 %	E	1.24	0.47	0.765	
LPE6562ER681MG	680	± 20 %	E	1.89	0.38	0.637	
LPE6562ER102MG	1000	± 20 %	E	2.91	0.31	0.526	
LPE6562ER152MG	1500	± 20 %	E	4.50	0.25	0.430	
LPE6562ER222MG	2200	± 20 %	E	6.90	0.20	0.355	
LPE6562ER332MG	3300	± 20 %	E	10.4	0.16	0.290	
LPE6562ER472MG	4700	± 20 %	E	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 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 %	A	ER	e2
MODEL	SIZE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	CORE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

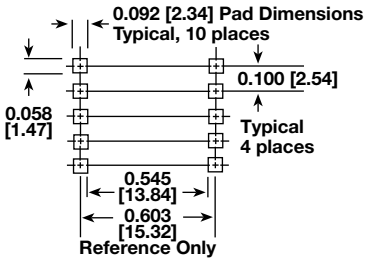
L	P	E	6	5	6	2	E	R	1	0	2	N	T
PRODUCT FAMILY			SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.	CORE

Note

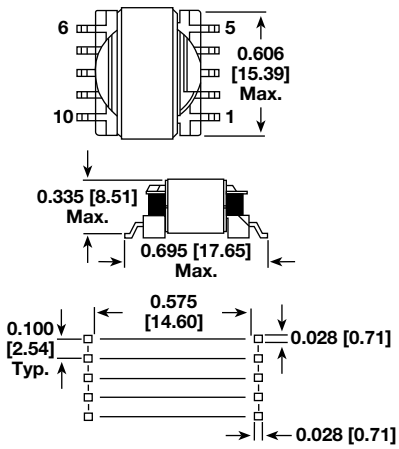
- Series is also available with SnPb terminations by using package code RY for tape and reel (in place of ER) or SM for bulk (in place of EB).

DIMENSIONS in inches [millimeters]

Pad Layout



Dimensional Outline

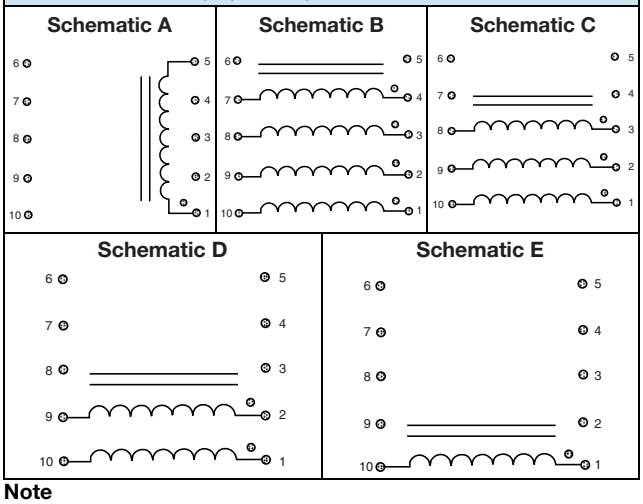


Foot Print Diagram

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].
- The underside of these components contains metal and thus should not come in contact with active circuit traces.

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

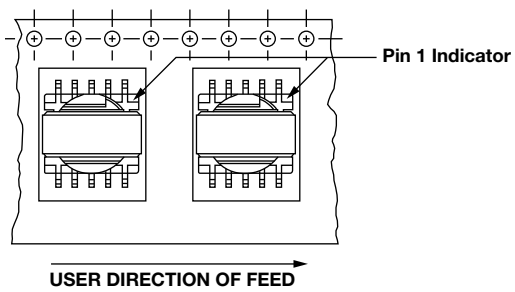
TAPE SPECIFICATIONS:
Carrier Tape Type: Conductive
Cover Tape Type: Anti-static
Cover Tape Adhesion to Carrier: 40 g ± 30 g

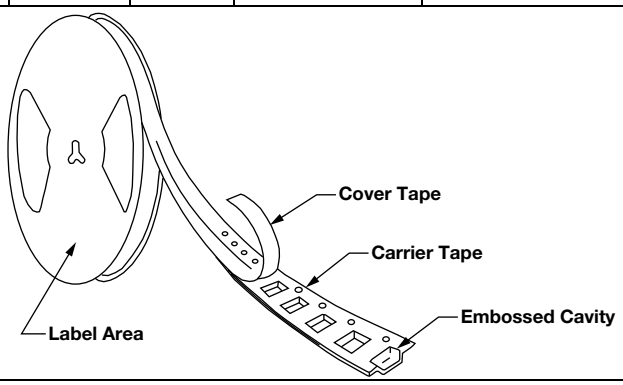
REEL SPECIFICATIONS:
Diameter (flange): 13" [330.2 mm]
Maximum Width (over flanges): 1.197" [30.4 mm]

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-6562	32 mm	20 mm	300

Tape and Reel Orientation

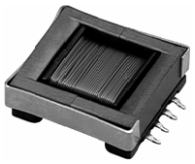




Note

- Top view shown with cover tape removed.

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



FEATURES

- Compliant to RoHS directive 2002/95/EC

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).

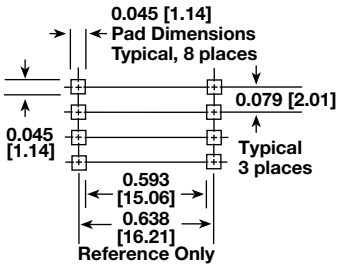
LPE-6855

Vishay Dale

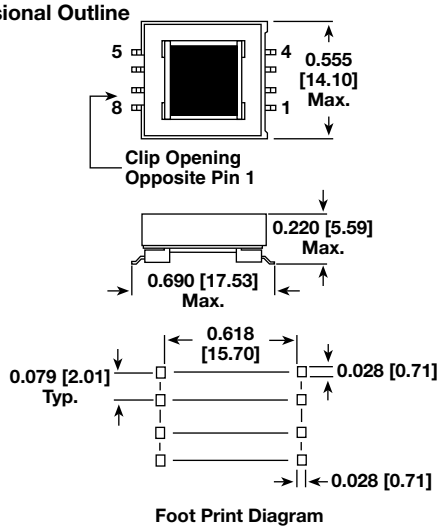
Surface Mount Transformers/Inductors,
Gapped and Ungapped, Custom Configurations Available

DIMENSIONS in inches [millimeters]

Pad Layout



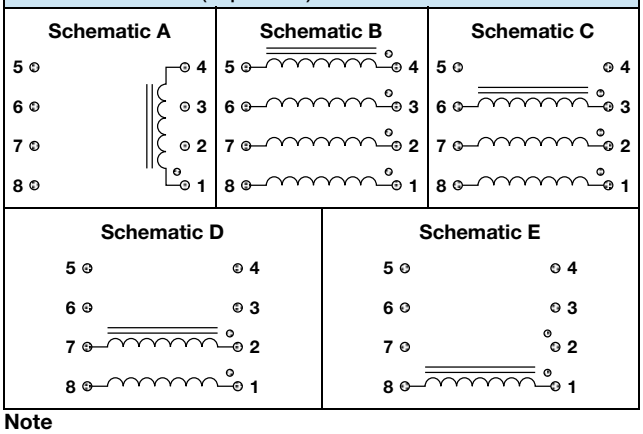
Dimensional Outline



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

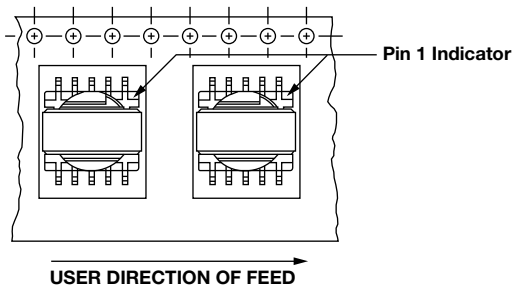
TAPE SPECIFICATIONS:
Carrier Tape Type: Conductive
Cover Tape Type: Anti-static
Cover Tape Adhesion to Carrier: 40 g ± 30 g

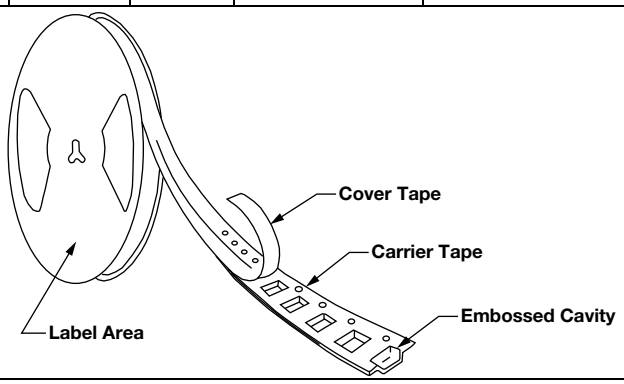
REEL SPECIFICATIONS:
Diameter (flange): 13" [330.2 mm]
Maximum Width (over flanges): 1.197" [30.4 mm]

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

Inductors/Transformers Customizable, Surface Mount Torodial, Kool-Mu®, Powdered Iron and MPP Cores

Note

- Kool Mu® is a registered trademark of Spang & Company

FEATURES

- Toroidal design for minimal EMI radiation in DC/DC converter applications
- Designed to support the growing need for efficient DC/DC converters in battery operated equipment
- Two separate windings provide versatility by ability to connect windings in series or parallel
- Dielectric withstanding voltage: 500 V_{RMS}, 60 Hz, 5 s
- Operating temperature range: -40 °C to +125 °C
- Supplied on tape and reel and is designed to be pick and place compatible
- Custom versions and turns ratios available. Contact the factory with your specifications

Pb-free

RoHS COMPLIANT

HALOGEN FREE

STANDARD ELECTRICAL SPECIFICATIONS (in parallel)

MODEL	STD. IND. (µH)	IND. TOL.	ACTUAL IND. (LOC) (µH)	DCR (Ω)	RATED I_{DC} (40 °C) (A)	IND. AT I_{DC} (L_{BIAS}) (30 %)	
LPT3535ER1R0LK	1.0	± 15 %	0.800	0.005	6.42	0.48 at 7.05	KOOL MU® CORE (A)
LPT3535ER1R5LK	1.5	± 15 %	1.80	0.009	4.77	1.07 at 4.70	
LPT3535ER2R5LK	2.5	± 15 %	2.45	0.011	4.45	1.46 at 4.03	
LPT3535ER3R3LK	3.3	± 15 %	3.20	0.015	3.73	1.90 at 3.52	
LPT3535ER5R0LK	5.0	± 15 %	5.00	0.023	3.01	2.98 at 2.82	
LPT3535ER100LK	10	± 15 %	11.3	0.055	1.95	6.69 at 1.88	
LPT3535ER150LK	15	± 15 %	16.2	0.081	1.59	9.64 at 1.57	
LPT3535ER250LK	25	± 15 %	26.5	0.131	1.25	15.7 at 1.23	
LPT3535ER330LK	33	± 15 %	33.8	0.182	1.05	20.1 at 1.08	
LPT3535ER500LK	50	± 15 %	51.2	0.280	0.84	30.5 at 0.88	
LPT3535ER101LK	100	± 15 %	101	0.514	0.63	60.2 at 0.63	
LPT3535ER151LK	150	± 15 %	151	0.775	0.57	90.0 at 0.51	
LPT3535ER251LK	250	± 15 %	252	1.279	0.40	150.0 at 0.40	
LPT3535ER331LK	330	± 15 %	328	1.837	0.33	195.0 at 0.35	
LPT3535ER1R0LP	1.0	± 15 %	0.882	0.004	5.10	0.56 at 4.29	POWDERED IRON (B)
LPT3535ER1R5LP	1.5	± 15 %	1.57	0.005	4.48	0.99 at 3.21	
LPT3535ER2R5LP	2.5	± 15 %	2.45	0.009	3.58	1.54 at 2.57	
LPT3535ER3R3LP	3.3	± 15 %	3.53	0.013	2.96	2.22 at 2.14	
LPT3535ER5R0LP	5.0	± 15 %	4.80	0.018	2.41	3.03 at 1.84	
LPT3535ER100LP	10	± 15 %	10.8	0.043	1.58	6.81 at 1.22	
LPT3535ER150LP	15	± 15 %	15.3	0.064	1.29	9.65 at 1.03	
LPT3535ER250LP	25	± 15 %	25.1	0.103	1.03	15.8 at 0.80	
LPT3535ER330LP	33	± 15 %	33.5	0.147	0.85	21.1 at 0.70	
LPT3535ER500LP	50	± 15 %	51.8	0.230	0.68	32.7 at 0.56	
LPT3535ER101LP	100	± 15 %	104	0.424	0.51	65.2 at 0.40	
LPT3535ER151LP	150	± 15 %	153	0.645	0.41	96.3 at 0.33	
LPT3535ER251LP	250	± 15 %	250	1.031	0.33	157.0 at 0.25	
LPT3535ER331LP	330	± 15 %	330	1.463	0.27	208.0 at 0.22	
LPT3535ER1R0LM	1.0	± 15 %	0.800	0.005	6.45	0.52 at 7.05	MPP (C)
LPT3535ER1R5LM	1.5	± 15 %	1.80	0.009	4.80	1.16 at 4.70	
LPT3535ER2R5LM	2.5	± 15 %	2.45	0.011	4.46	1.58 at 4.03	
LPT3535ER3R3LM	3.3	± 15 %	3.20	0.015	3.73	2.06 at 3.52	
LPT3535ER5R0LM	5.0	± 15 %	5.00	0.023	3.02	3.22 at 2.82	
LPT3535ER100LM	10	± 15 %	11.3	0.055	1.94	7.25 at 1.88	
LPT3535ER150LM	15	± 15 %	16.2	0.081	1.59	10.43 at 1.57	
LPT3535ER250LM	25	± 15 %	26.5	0.131	1.26	17.0 at 1.23	
LPT3535ER330LM	33	± 15 %	33.8	0.182	1.05	21.8 at 1.08	
LPT3535ER500LM	50	± 15 %	51.2	0.280	0.84	33.0 at 0.88	
LPT3535ER101LM	100	± 15 %	101	0.514	0.64	97.4 at 0.51	
LPT3535ER151LM	150	± 15 %	151	0.775	0.52	65.2 at 0.63	
LPT3535ER251LM	250	± 15 %	252	1.279	0.40	162.0 at 0.51	
LPT3535ER331LM	330	± 15 %	328	1.837	0.33	211.0 at 0.35	

DESCRIPTION

LPT	3535	100 µH	± 15 %	A	ER	e2
MODEL	SIZE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	CORE/HEIGHT K = KOOL MU® (A) P = POWDERED IRON (B) M = MPP (C)	PACKAGE CODE ER = reel	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

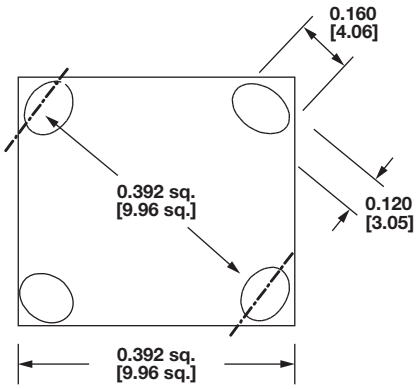
L	P	T	3	5	3	5	E	R	1	0	1	L	K
PRODUCT FAMILY			SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.	CORE

Note

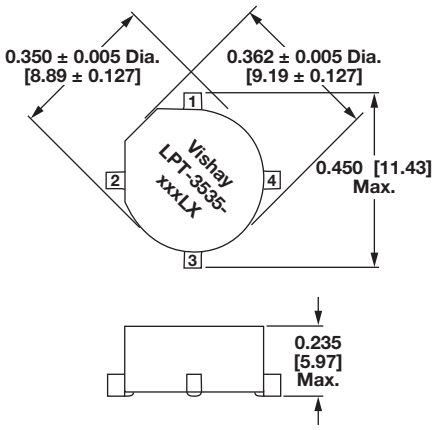
- Series is also available with SnPb terminations by using package code RH for tape and reel (in place of ER)

DIMENSIONS in inches [millimeters]

Pad Layout

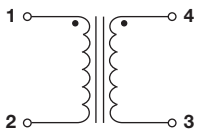


Dimensional Outline

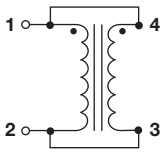


SCHEMATICS (connection diagrams)

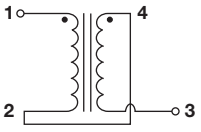
Transformer



Parallel



Series



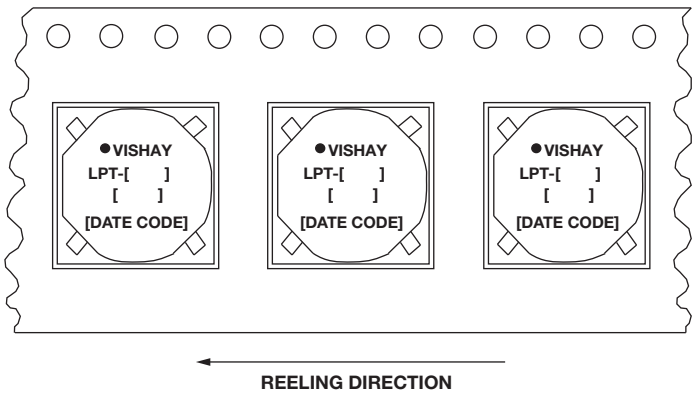
PART MARKING

- Vishay
- Model number
- Pin 1 identification

PACKAGING in inches [millimeters]

All embossed carrier tape packaging will be in compliance with the latest revision of EIA-481.

CARRIER TAPE WIDTH	PITCH	PARTS PER 13" [330.2] REEL
0.945 [24.0]	0.630 [16.0]	600



Inductors/Transformers Customizable, Surface Mount Torodial, Kool-Mu®, Powdered Iron and MPP Cores

Note

- Kool Mu® is a registered trademark of Spang & Company

FEATURES

- Toroidal design for minimal EMI radiation in DC/DC converter applications
- Designed to support the growing need for efficient DC/DC converters in battery operated equipment
- Two separate windings provide versatility by ability to connect windings in series or parallel
- Dielectric withstanding voltage: 500 V_{RMS}, 60 Hz, 5 s
- Operating temperature range: -40 °C to +125 °C
- Supplied on tape and reel and is designed to be pick and place compatible
- Custom versions and turns ratios available. Contact the factory with your specifications

Pb-free

RoHS COMPLIANT

HALOGEN FREE

STANDARD ELECTRICAL SPECIFICATIONS (in parallel)

MODEL	STD. IND. (µH)	IND. TOL.	ACTUAL IND. (LOC) (µH)	DCR (Ω)	RATED I_{DC} (40 °C) (A)	IND. AT I_{DC} (L_{BIAS}) (30 %)	
LPT4545ER1R0LK	1.0	± 15 %	0.832	0.003	6.90	0.51 at 7.62	KOOL MU® CORE (A)
LPT4545ER1R5LK	1.5	± 15 %	1.30	0.004	6.45	0.80 at 6.10	
LPT4545ER2R5LK	2.5	± 15 %	2.55	0.006	5.75	1.57 at 4.35	
LPT4545ER3R3LK	3.3	± 15 %	3.33	0.007	5.50	2.05 at 3.81	
LPT4545ER5R0LK	5.0	± 15 %	5.20	0.011	4.45	3.20 at 3.05	
LPT4545ER100LK	10	± 15 %	10.2	0.019	3.45	6.28 at 2.18	
LPT4545ER150LK	15	± 15 %	15.0	0.029	2.79	9.26 at 1.79	
LPT4545ER200LK	20	± 15 %	20.8	0.038	2.61	12.4 at 1.53	
LPT4545ER250LK	25	± 15 %	25.2	0.048	2.25	15.5 at 1.39	
LPT4545ER330LK	33	± 15 %	32.5	0.068	1.85	20.0 at 1.22	
LPT4545ER500LK	50	± 15 %	50.0	0.107	1.50	30.8 at 0.98	
LPT4545ER101LK	100	± 15 %	101	0.195	1.15	62.0 at 0.69	
LPT4545ER151LK	150	± 15 %	152	0.302	0.92	93.4 at 0.56	
LPT4545ER251LK	250	± 15 %	248	0.491	0.73	153.0 at 0.44	
LPT4545ER301LK	300	± 15 %	300	0.670	0.63	179.0 at 0.40	
LPT4545ER331LK	330	± 15 %	333	0.706	0.60	205.0 at 0.38	
LPT4545ER1R0LP	1.0	± 15 %	0.838	0.004	6.61	0.53 at 7.09	POWDERED IRON (B)
LPT4545ER1R5LP	1.5	± 15 %	1.21	0.005	6.08	0.76 at 5.91	
LPT4545ER2R5LP	2.5	± 15 %	2.71	0.009	5.01	1.71 at 3.94	
LPT4545ER3R3LP	3.3	± 15 %	3.35	0.012	4.22	2.11 at 3.54	
LPT4545ER5R0LP	5.0	± 15 %	5.66	0.019	3.32	3.57 at 2.73	
LPT4545ER100LP	10	± 15 %	10.9	0.034	2.52	6.84 at 1.97	
LPT4545ER150LP	15	± 15 %	14.8	0.049	2.10	9.31 at 1.69	
LPT4545ER250LP	25	± 15 %	26.3	0.084	1.61	16.5 at 1.27	
LPT4545ER330LP	33	± 15 %	34.3	0.119	1.34	21.6 at 1.11	
LPT4545ER500LP	50	± 15 %	51.0	0.180	1.09	32.1 at 0.91	
LPT4545ER101LP	100	± 15 %	105	0.342	0.81	66.2 at 0.63	
LPT4545ER151LP	150	± 15 %	150	0.509	0.66	94.7 at 0.53	
LPT4545ER251LP	250	± 15 %	248	0.831	0.52	156.0 at 0.41	
LPT4545ER331LP	330	± 15 %	335	1.194	0.43	211.0 at 0.35	
LPT4545ER1R0LM	1.0	± 15 %	0.838	0.004	7.54	0.54 at 11.11	MPP (C)
LPT4545ER1R5LM	1.5	± 15 %	1.30	0.004	6.82	0.84 at 8.89	
LPT4545ER2R5LM	2.5	± 15 %	2.55	0.007	5.84	1.64 at 6.35	
LPT4545ER3R3LM	3.3	± 15 %	3.33	0.008	5.49	2.14 at 5.56	
LPT4545ER5R0LM	5.0	± 15 %	5.20	0.012	4.37	3.35 at 4.45	
LPT4545ER100LM	10	± 15 %	10.2	0.022	3.32	6.56 at 3.18	
LPT4545ER150LM	15	± 15 %	15.0	0.033	2.69	9.68 at 2.61	
LPT4545ER250LM	25	± 15 %	25.2	0.054	2.12	16.2 at 2.02	
LPT4545ER330LM	33	± 15 %	32.5	0.076	1.76	20.9 at 1.78	
LPT4545ER500LM	50	± 15 %	50.0	0.119	1.41	32.2 at 1.43	
LPT4545ER101LM	100	± 15 %	101	0.219	1.07	64.8 at 1.01	
LPT4545ER151LM	150	± 15 %	152	0.340	0.86	97.7 at 0.82	
LPT4545ER251LM	250	± 15 %	248	0.551	0.67	159.0 at 0.64	
LPT4545ER331LM	330	± 15 %	333	0.788	0.56	214.0 at 0.56	

DESCRIPTION

LPT	4545	100 µH	± 15 %	A	ER	e2
MODEL	SIZE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	CORE/HEIGHT K = KOOL MU® (A) P = POWDERED IRON (B) M = MPP (C)	PACKAGE CODE ER = reel	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

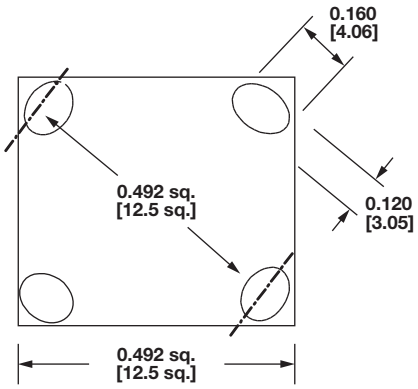
L	P	T	4	5	4	5	E	R	1	0	1	L	K
PRODUCT FAMILY			SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.	CORE

Note

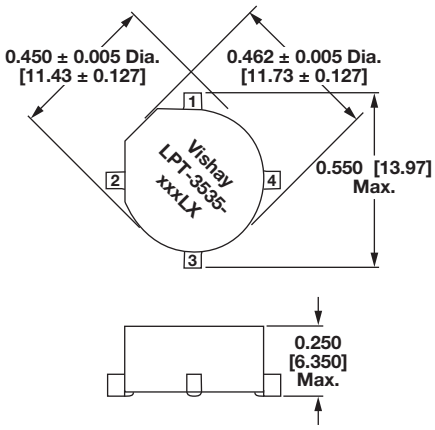
- Series is also available with SnPb terminations by using package code RH for tape and reel (in place of ER)

DIMENSIONS in inches [millimeters]

Pad Layout

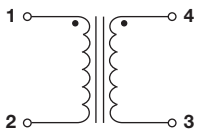


Dimensional Outline

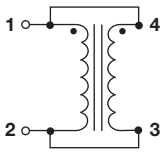


SCHEMATICS (connection diagrams)

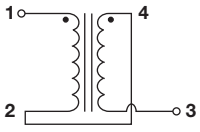
Transformer



Parallel



Series



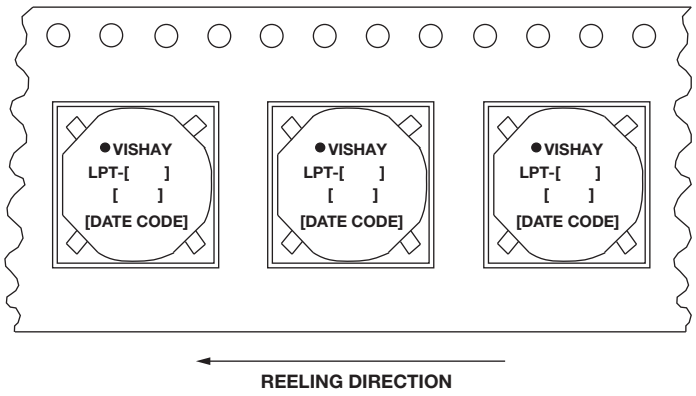
PART MARKING

- Vishay
- Model number
- Pin 1 identification

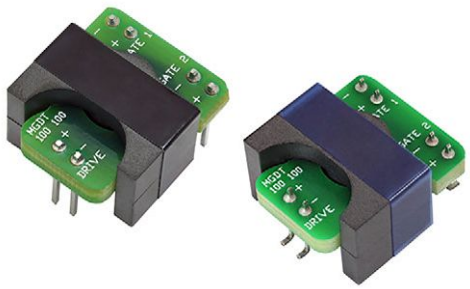
PACKAGING in inches [millimeters]

All embossed carrier tape packaging will be in compliance with the latest revision of EIA-481.

CARRIER TAPE WIDTH	PITCH	PARTS PER 13" [330.2] REEL
0.945 [24.0]	0.630 [16.0]	600



Miniaturized Gate Drive Planar Transformers



FEATURES

RoHS* Available

- Deliver MOSFET / IGBT gate power and timing signals simultaneously
- Directly drive high side MOSFETs / IGBTs on busses up to 1200 V
- Excellent rise time, overshoot, and peak current characteristics
- 8 mm minimum creepage and clearance from drive to gates
- Low profile planar package
- LF and SM versions are RoHS-compliant

Note

* This datasheet provides information about parts that are RoHS-compliant and / or parts that are non RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details

ABSOLUTE MAXIMUM RATINGS

PARAMETER	CONDITIONS	LIMITS	UNITS
Dielectric withstand voltage	Drive to gate, 1 min	3750	V_{AC}
	Gate to gate, 1 min	2500	V_{AC}
Total power dissipation (1)	T_A = 25 °C	2.0	W
Operating temperature (2)	Continuous	-55 to +125	°C
Storage temperature	Continuous	-55 to +130	°C
Frequency		100 to 500	kHz
Size (L x W x H)		20.57 x 18.42 x 11.43	mm
Terminals	Through-hole and surface-mount		

Note

(1) Derate at 33.3 mW/°C above 25 °C

(2) Derate drive level to 60 V/µs above 85°C

STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	USEFUL FREQ. RANGE (kHz)	TRANSFER RATIO (± 3 %) (1)	DRIVE EXCITATION MAX. (Vµs)	MAGNETIZING INDUCTANCE MIN. (µH) (2)(3)	LEAKAGE INDUCTANCE MAX. (µH) (4)	DC RESISTANCE (2)		INTERWINDING CAPACITANCE	
						DRIVE MAX. (Ω)	GATES MAX. (Ω)	DRIVE TO GATE MAX. (pF)	GATE TO GATE MAX. (pF)
MGDT100100	100 to 500	1 : 1 : 1	80	240	0.5	0.35	0.35	15	10
MGDT100100LF	100 to 500	1 : 1 : 1	80	240	0.5	0.35	0.35	15	10
MGDT100100-SM	100 to 500	1 : 1 : 1	80	240	0.5	0.35	0.35	15	10
MGDT100125	100 to 500	1 : 1.25 : 1.25	80	240	0.5	0.35	0.50	25	10
MGDT100125LF	100 to 500	1 : 1.25 : 1.25	80	240	0.5	0.35	0.50	25	10
MGDT100125-SM	100 to 500	1 : 1.25 : 1.25	80	240	0.5	0.35	0.50	25	10

Notes

(1) Drive : gate : gate

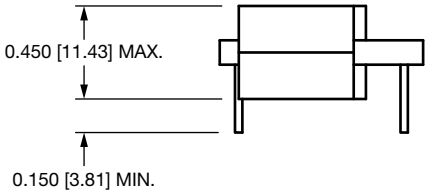
(2) T_A = 25 °C

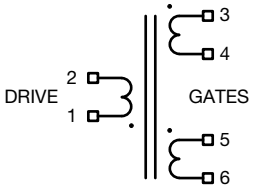
(3) 100 mV at 100 kHz across the drive winding with all gates open

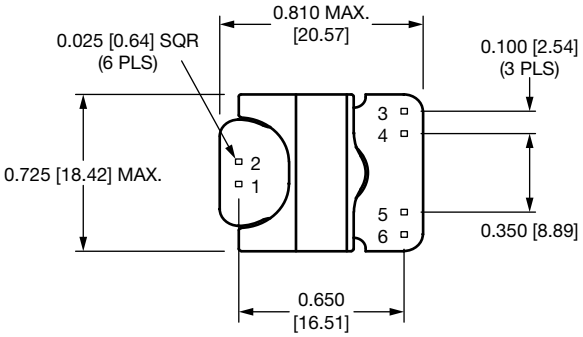
(4) 100 mA at 100 kHz into the drive winding with all gates shorted

DIMENSIONS in inches [millimeters]

MGDT1001.., MGDT1001..LF

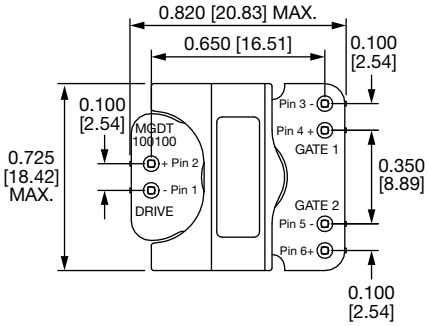


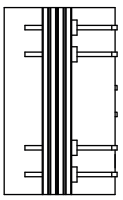


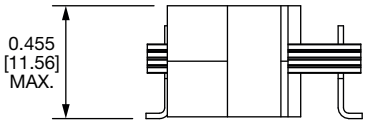


Tolerance on all dimensions is ± 0.010 [0.25] unless otherwise specified.

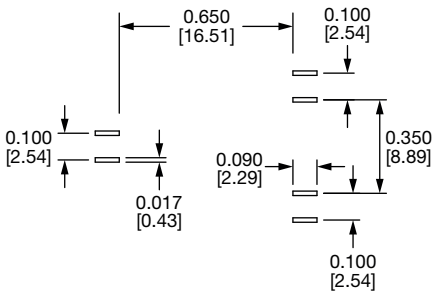
MGDT1001..-SM

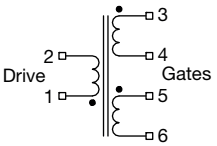




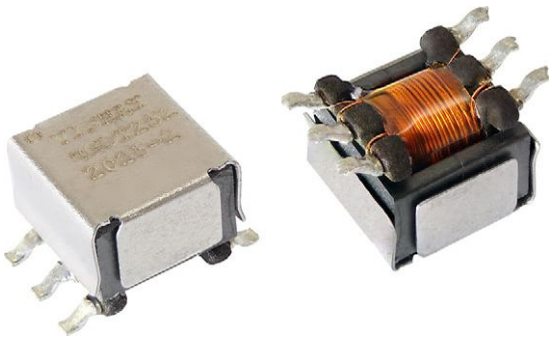


Component Footprint





Micro Gate Drive Transformers



FEATURES

RoHS* Available

- Deliver MOSFET / IGBT gate power and timing signals simultaneously
- Directly drive high side MOSFETs / IGBTs on busses up to 200 V
- Excellent rise time, overshoot, and peak current characteristics
- For lead (Pb)-free parts, please add "-LF" to the end of the part number

Note

* This datasheet provides information about parts that are RoHS-compliant and / or parts that are non RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details

ABSOLUTE MAXIMUM RATINGS

PARAMETER	CONDITIONS	LIMITS	UNITS
Dielectric withstand voltage	Drive to gate, 1 min	1500	V_{DC}
	Gate to gate, 1 min	500	V_{DC}
Winding current	Any winding	100	mA_{RMS}
Total power dissipation (1)		400	mW
Operating temperature	Continuous	-55 to +130	°C
Storage temperature	Continuous	-55 to +155	°C
Frequency		125 to 750	kHz
Size (L x W x H)		8.9 x 6.6 x 5.6	mm
Terminals	Surface-mount		

Note

(1) Derate at 5 mW/°C above 25 °C

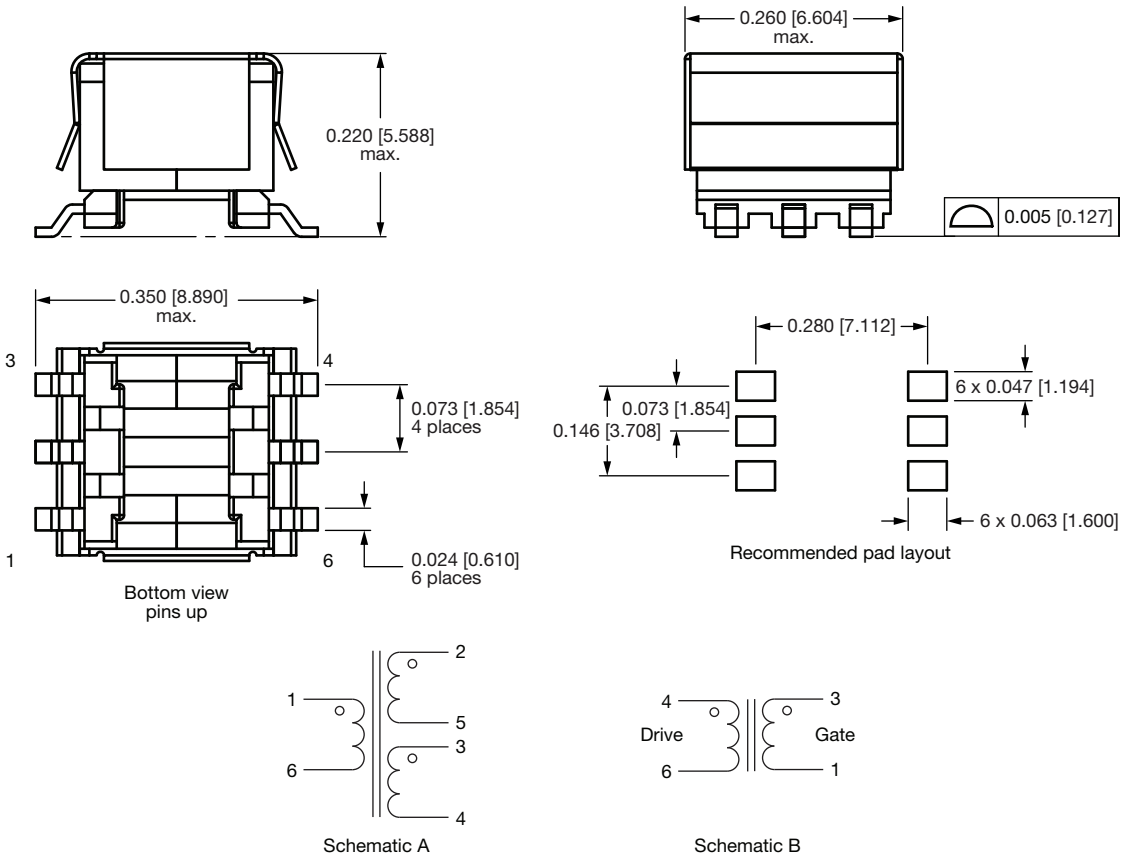
STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER (1)	USEFUL FREQ. RANGE (kHz)	TRANSFER RATIO (± 1 %) (2)	DRIVE EXCITATION MAX. (V x µs)	MAGNETIZING INDUCTANCE MIN. (µH) (3)(4)	LEAKAGE INDUCTANCE MAX. (nH) (5)	DC RESISTANCE (3)		INTERWINDING CAPACITANCE		SCHEMATIC
						DRIVE MAX. (Ω)	GATES MAX. (Ω)	DRIVE TO GATE MAX. (pF)	GATE TO GATE MAX. (pF)	
MTBAUGDT125050	125 to 500	1 : 0.5 : 0.5	63	330	500	2.0	0.7	60	30	A
MTBAUGDT125075	125 to 500	1 : 0.75 : 0.75	66	360	500	2.0	2.0	60	30	A
MTBAUGDT125100	125 to 500	1 : 1 : 1	63	330	500	2.0	2.0	160	160	A
MTBAUGDT250101	250 to 750	1 : 1	25.8	350	1000	1.0	0.65	75	n/a	B
MTBAUGDT250102	250 to 750	1 : 1 : 1	22.4	264	300	1.5	1.5	95	95	A
MTBAUGDT250251	250 to 750	2.5 : 1	30.6	473	1500	1.5	0.3	25	n/a	B
MTBAUGDT250252	250 to 750	2.5 : 1 : 1	23.8	300	900	1.8	0.3	27	27	A

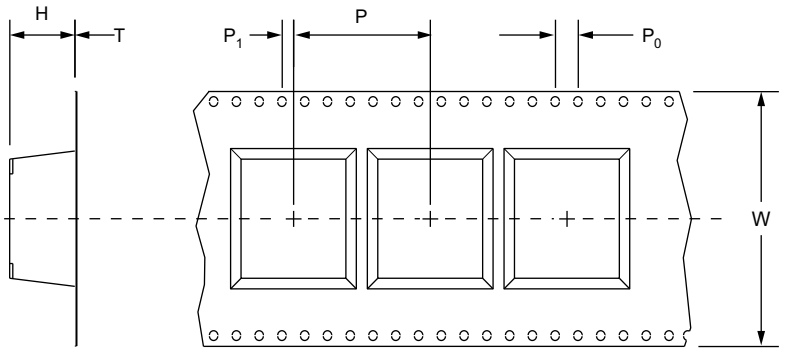
Notes

(1) For lead (Pb)-free parts, please add "-LF" to the end of the part number
(2) Drive: gate or drive : gate : gate
(3) T_A = 25 °C
(4) Small signal measurement across the drive winding with both gates open
(5) Small signal measurement a across the drive winding with both gates shorted
(6) Derate at 5 mW/°C above 25 °C

DIMENSIONS in inches [millimeters]

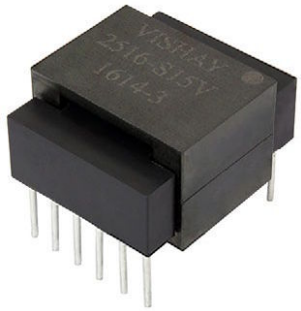


TAPE AND REEL SPECIFICATIONS



PARAMETER	SYMBOL	DIMENSIONS inches [mm]
Tape width	W	0.630 [16.0]
Component pitch	P	0.315 [8.0]
Indexing pitch	P_0	0.157 [4.0]
Index-to-component offset	P_1	0.079 [2.0]
Pocket height	H	0.213 [5.4]
Tape thickness	T	0.012 [0.3]
Reel overall diameter	OD	13.0 [330]
Reel axle diameter	AD	0.5 [13]
Reel capacity	Qty	1000/reel

Versatile Through-Hole Planar Transformers



FEATURES

- Higher power density levels versus traditional planar designs
- Designed to meet MIL-PRF-27 requirements
- Minimal board area footprint
- Easily customized to meet design-specific requirements
- Operating frequencies from 100 kHz to 500 kHz
- Split primary design to allow for efficient 120 V or 380 V operation
- Overmolded windings for ruggedized applications
- Minimal parasitic variation
- Operating temperature range -55 °C to +130 °C, power derating above 105 °C
- **Patent pending**

APPLICATIONS

- Off-line and PFC-derived switchmode power supplies
- Full-bridge / half-bridge converters from 150 W to 300 W
- Industrial control, and alternative energy applications
- Markets include avionics, industrial, military, and medical

ABSOLUTE MAXIMUM RATINGS			
PARAMETER	**CONDITIONS**	**LIMITS**	**UNITS**
Dielectric withstand voltage	Pri - sec, 5 s	1500	V_{AC}
	Sec - sec; 5 s	500	V_{AC}
Total power dissipation (1)	T_A = 105 °C	3	W
Power		150 to 300	W
Operating temperature	Continuous	-55 to +130	°C
Storage temperature	Continuous	-65 to +155	°C
Frequency		100 to 500	kHz
Size (L x W x H)		30 x 26 x 17	mm
Terminals	Through hole		

Note

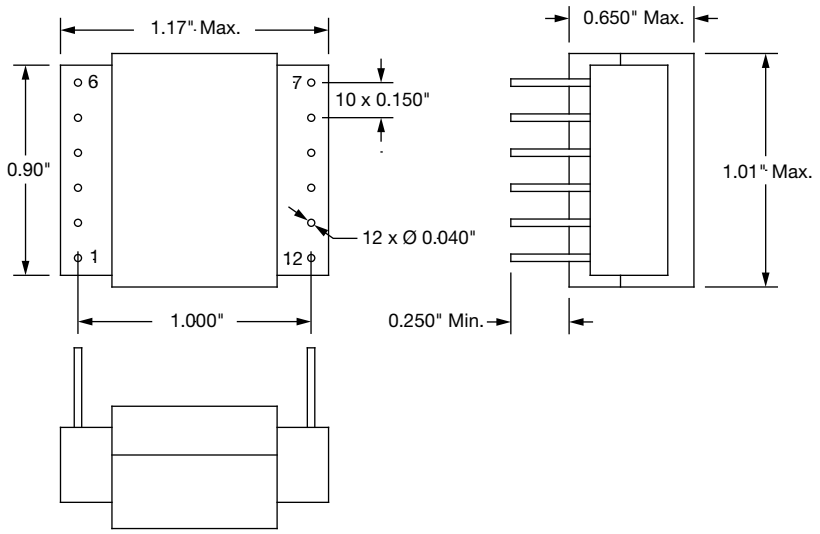
(1) Derate per the graph for temperatures above 105 °C

STANDARD ELECTRICAL SPECIFICATIONS									
PART NUMBER	**OUTPUT VOLTAGE (V)**	**MAGNETIZING INDUCTANCE MIN. (µH) (1)**	**LEAKAGE INDUCTANCE MAX. (µH) (2)**	**INTERWINDING CAPACITANCE MAX. (pF)**	**TRANSFER RATIO PRI : SEC**	**DCR (mΩ) (3)**			**RATED CURRENT (A) (4)**
						2.3 to 4.5	**12 to 8**	**11 to 7**	
MTPL-2516-S12V	12	450	1.70	120	0.176	23.0	8	8	22.0
MTPL-2516-S15V	15	450	2.00	120	0.214	28.0	12	12	16.25
MTPL-2516-S24V	24	450	1.30	120	0.333	23.0	25	25	12.5

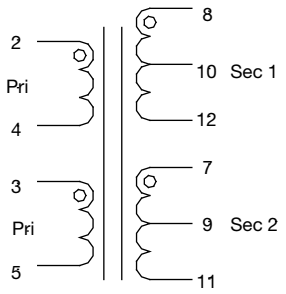
Notes

(1) 100 mV at 100 kHz, across 2.3 to 4.5
(2) 100 mV at 100 kHz across 2.3 to 4.5, short 7 through 12
(3) T_A = 25 °C
(4) Current rated for 40 °C temperature rise, secondaries in parallel

DIMENSIONS in inches



Schematic



For 90 V to 270 V operation tie 2.3 and 4.5.
For 380 V operation tie 3.4.

TEMPERATURE RISE VS. POWER DISSIPATION (W)

По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

Россия (495)268-04-70
Киргизия (996)312-96-26-47
Казахстан (7172)727-132

vyh@nt-rt.ru || https://vishay.nt-rt.ru/