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

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:

Rated Current Range: 2.29 amps to 0.07 amps

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

NOTE:

- Pad layout guidelines per MIL-STD-275E (printed wiring for electronic equipment).
- Dielectric Withstanding Voltage: 500 V RMS, 60 Hz, 5 seconds
- ** 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.

**GLOBAL PART NUMBER**

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**DESCRIPTION**

<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
<th>Inductance Value</th>
<th>Inductance Tolerance</th>
<th>Core</th>
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**STANDARD ELECTRICAL SPECIFICATIONS**

- **Model:** Ungapped Models (A), Gapped Models (B)
- **Inductance (μH):** 10 μH to 68 000 μH, measured at 0.10 V RMS
- **Inductance Tolerance:** ± 30 %
- **DC Resistance (Ω):** 0.29 to 0.65
- **Max. Rated DCR (Amps):** 0.05 to 2.07
- **Saturation Current (Amps):** N/A

**REFERENCES:**

- Document Number: 34065
- Revision: 10-Oct-08
- For technical questions, contact: magnetics@vishay.com
- www.vishay.com
LPE-5047
Vishay Dale Surface Mount Transformers/Inductors,
Gapped and Ungapped Custom Configurations Available

SCHEMATIC (TOP VIEW)

<table>
<thead>
<tr>
<th>Schematic A</th>
<th>Schematic B</th>
<th>Schematic C</th>
<th>Schematic D</th>
<th>Schematic E</th>
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NOTE: Schematic A is for Ungapped LPE Series

ENVIRONMENTAL PERFORMANCE

<table>
<thead>
<tr>
<th>TEST</th>
<th>CONDITIONS</th>
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<tbody>
<tr>
<td>Thermal Cycling</td>
<td>Withstands -55 °C to +125 °C</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-55 °C to +125 °C*</td>
</tr>
<tr>
<td>High Humidity</td>
<td>85%</td>
</tr>
<tr>
<td>Soldering Heat</td>
<td>Tested to +230 °C</td>
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<tr>
<td>Mechanical Shock</td>
<td>Per MIL-STD-202, Method 213 (100G)</td>
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<tr>
<td>Vibration</td>
<td>Per MIL-STD-202, Method 204 (20G)</td>
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<tr>
<td>Solderability</td>
<td>Per industry standards</td>
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</table>

* 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]

<table>
<thead>
<tr>
<th>MODEL</th>
<th>TAPE WIDTH</th>
<th>COMPONENT PITCH</th>
<th>UNITS PER 13 INCH REEL</th>
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<tr>
<td>LPE-5047</td>
<td>24 mm</td>
<td>16 mm</td>
<td>600</td>
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</table>

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".

Tape and Reel Orientation

NOTE: Top view shown with cover tape removed
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