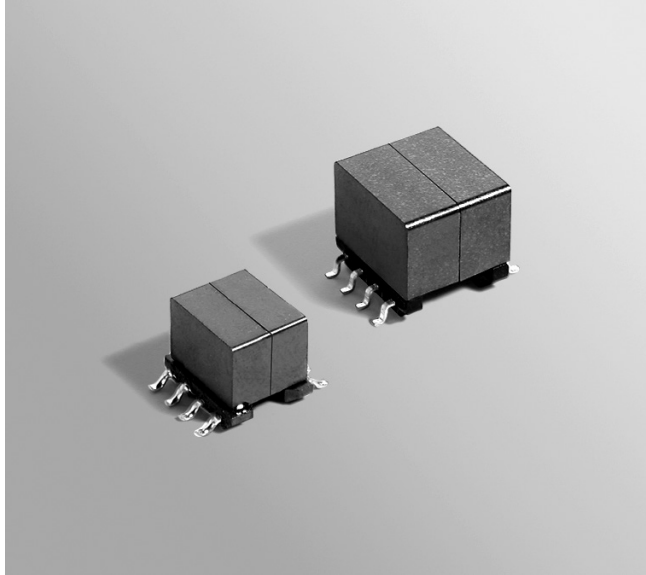


Push-Pull Transformers

For Linear LT3999
Push-Pull DC/DC Driver



- Developed for Linear LT3999 Low Noise, 1 A, 1 MHz Push-Pull DC/DC Driver with Duty Cycle Control
- 500 Vrms, one minute isolation primary windings to secondary windings
- Three output power versions: 1 W (12 V, 0.083 A), 5 W (5 V, 1 A), and 10 W (12 V, 0.83 A)

Core material Ferrite

Terminations RoHS tin-silver (96.5/3.5) over tin over nickel over phos bronze.

Weight PA6381-AL, PA6383-AL: 1.9 – 2.1 g; PA6384-AL: 3.8 – 4.0 g

Ambient temperature –40°C to +85°C

Maximum part temperature +125°C (ambient + temp rise)

Storage temperature Component: –40°C to +125°C.

Tape and reel packaging: –40°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Failures in Time (FIT) / Mean Time Between Failures (MTBF)

10.06 per billion hours / 9.940E+07 hours, calculated per Telcordia SR-332

Packaging See dimensional drawings

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

Part number ¹	Input voltage (V)	Primary inductance (μH) ²		Leakage inductance ³ max (μH)	DCR max ⁴ (Ohms)		Volt-time product ⁵ (V-μsec)	Turns ratio ⁶ pri:sec	Output
		min	max		pri	sec			
PA6381-AL_	5.0	139	232	0.520	0.166 (A); 0.201 (B)	1.78	26	1:3.46	12 V, 0.083 A
PA6383-AL_	5.0	29.7	49.5	0.190	0.035 (A); 0.045 (B)	0.067	12	1:1.5	5 V, 1.0 A
PA6384-AL_	12	82.5	137.5	0.336	0.048 (A); 0.061 (B)	0.072	22	1:1.4	12 V, 0.83 A

1. When ordering, specify a **packaging** code:

PA6384-ALD

Packaging: D = 13" machine ready reel. EIA-481 embossed plastic tape. Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

2. Inductance is for Pri A measured on an Agilent/HP 4284 at 100 kHz, 0.1 Vrms, 0 Adc.

3. Leakage inductance measured between pins 1 and 4 at 100 kHz, 0.1 Vrms, 0 Adc with pins 2 and 3 connected and with secondary pins shorted.

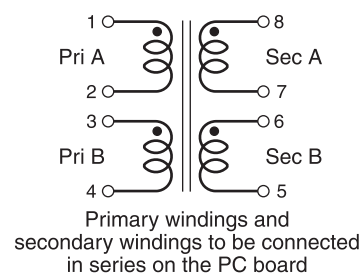
4. DCR for the secondary is for each winding.

5. Volt-time product is for Primary A, between pin 1 and 2.

6. Turns ratio is with the primary windings and secondary windings connected in series.

7. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



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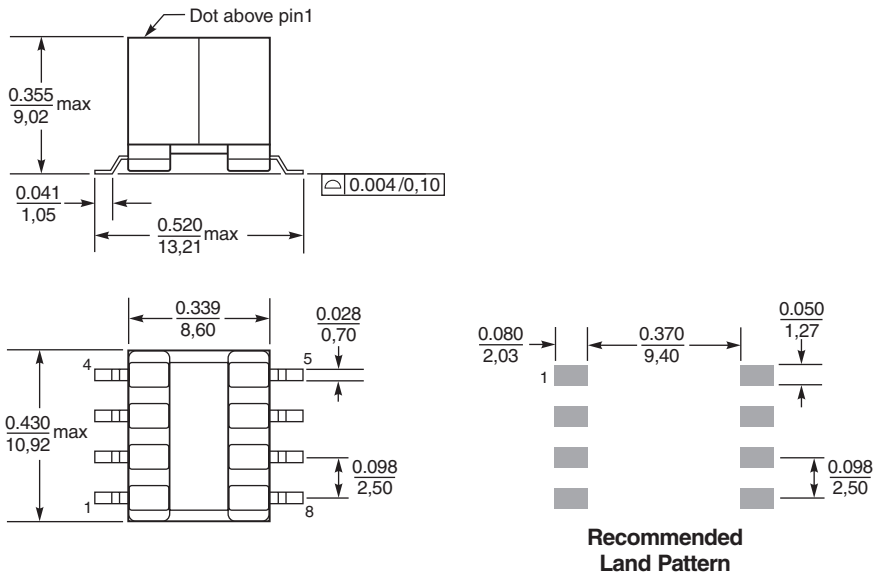
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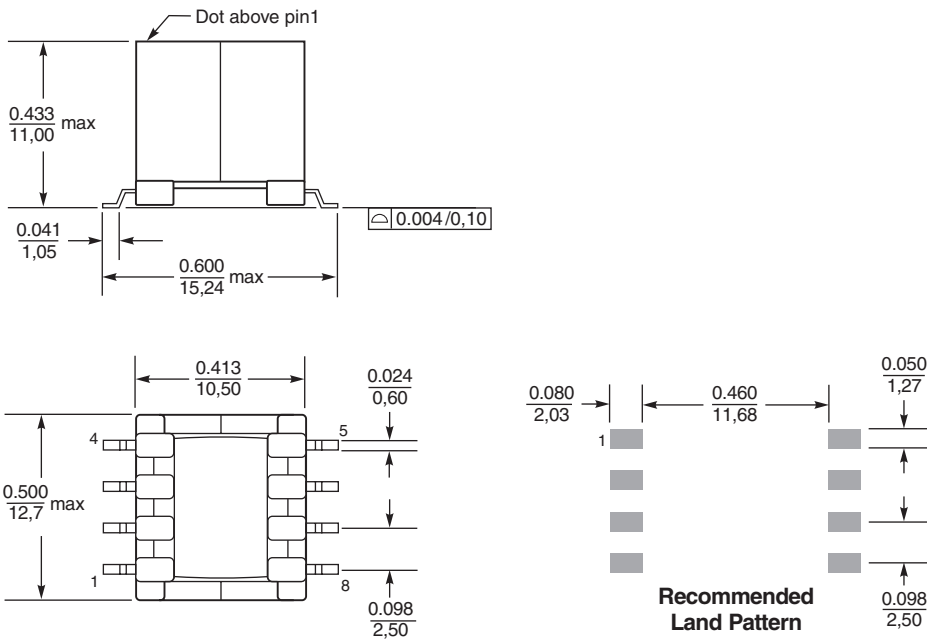


Push-Pull Transformers for Linear LT3999

PA6381-AL, PA6383-AL



PA6384-AL



Dimensions are in $\frac{\text{inches}}{\text{mm}}$

Packaging

PA6381-AL, PA6383-AL 350 per 13" reel Plastic tape: 32 mm wide, 0.42 mm thick, 20 mm pocket spacing, 9.16 mm pocket depth

PA6384-AL 200 per 13" reel Plastic tape: 32 mm wide, 0.5 mm thick, 24 mm pocket spacing, 11.2 mm pocket depth



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