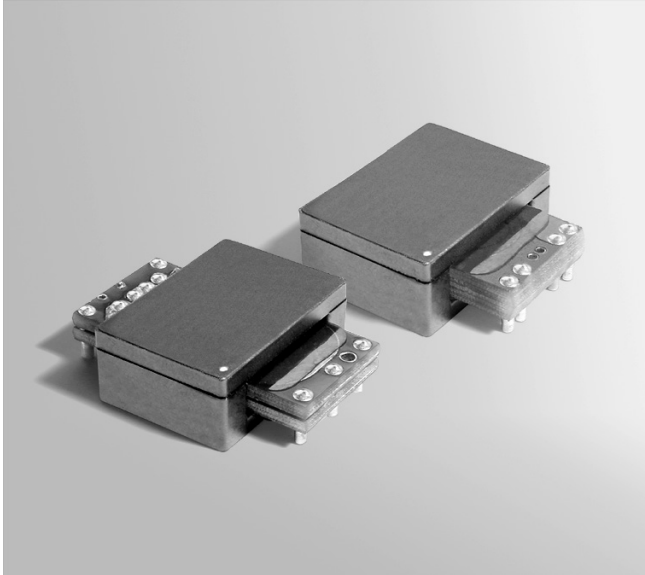


Planar Magnetics

For National Semiconductor
LM5041 IC



This planar transformer and inductor pair were designed specifically for National Semiconductor's LM5041 IC.

The A9786-A transformer is engineered for use in high-current telecom power supply applications that require high efficiency in a low-profile package. The auxiliary winding can be used to control input current to PWMs. It offers very high current handling capability and extremely low DC resistance in a low profile package.

Coilcraft's A9787-A inductor is designed as the output choke for the LM5041.

Planar magnetics offer high power densities along with great reliability and repeatability. Windings are etched into a printed circuit board, ensuring high efficiency and consistency.

Request free evaluation samples by contacting Coilcraft or visiting www.coilcraft.com.

Transformer

| Part number ¹ | Output power (W) | Input voltage range (V) | Output voltage (V) | Output current (A rms) | Primary inductance ¹ min (mH) | Leakage inductance ² max (μH) | DCR max (mOhms) | Pri/sec isolation (Vdc) |
|--------------------------|------------------|-------------------------|--------------------|------------------------|------------------------------------------|------------------------------------------|-----------------------------------------------------------------|-------------------------|
| A9786-AL_ | 150 | 36–75 | 2.5 | 60.0 | 1.25 | 0.90 | Primary: 62.5 (1–3) Secondary: 0.91 (5,6–9,10) 200 (4–11) | 1100 |

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

A9786-ALD

Packaging: D = 13" machine-ready reel. EIA-481 embossed plastic tape (125 parts per full reel).

B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter D instead.

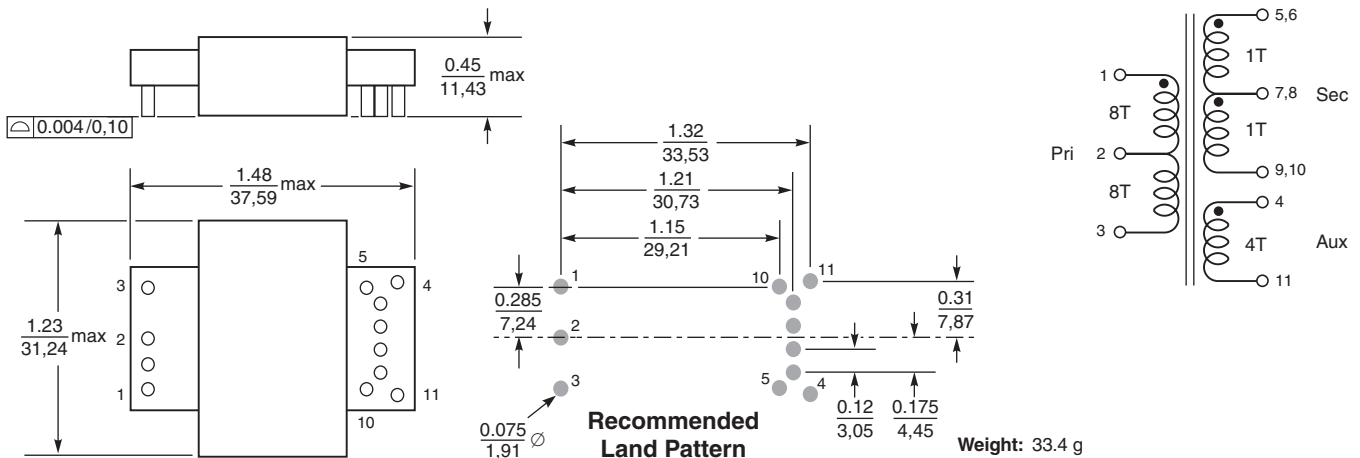
2. Inductance measured on an Agilent/HP 4284 between pins 1 and 3 at 250 kHz, 0.1 Vrms, 0 Adc.

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

4. Operating temperature range: –40°C to +85°C.

5. Electrical specifications at 25°C.

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



Weight: 33.4 g

Terminations: Matte tin over nickel over brass

Tape and reel: 125/13" reel 56 mm tape



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Planar Magnetics for National Semiconductor LM5041

Output Inductor

| Part number ¹ | Inductance ² @ 0 Adc (μ H) | Inductance ² @ 7.5 Adc min (μ H) | DCR max (mOhms) | Isolation ³ (Vdc) | Isat ⁴ (A) | Irms ⁵ (A) |
|--------------------------|--------------------------------------------------|--------------------------------------------------------|--------------------|---------------------------------|--------------------------|--------------------------|
| A9787-AL_ | 57 \pm 7% | 47.0 | 17.0 | 1100 | 8.1 | 12.0 |

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

A9787-ALD

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B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter D instead.

2. Inductance measured on an Agilent/HP 4284 at 250 kHz, 0.1 Vrms.

3. Isolation measured from pins 1,2 to the core.

4. DC current at which inductance drops 10% (typ) from its value without current.

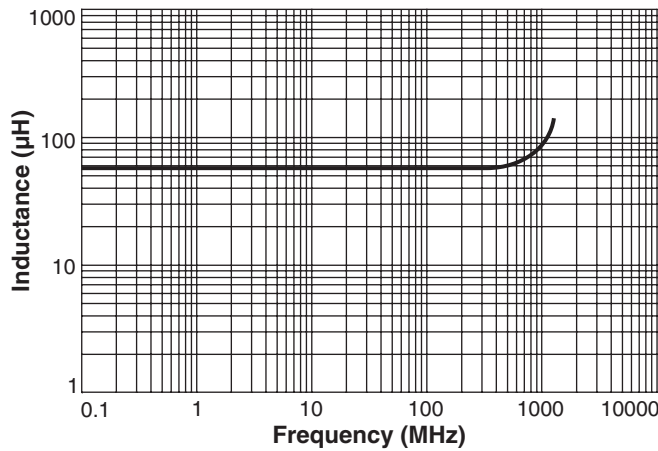
5. Current that causes a 40°C rise from 25°C ambient.

6. Operating temperature range: -40°C to +85°C.

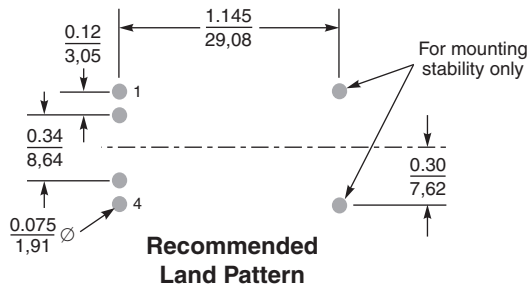
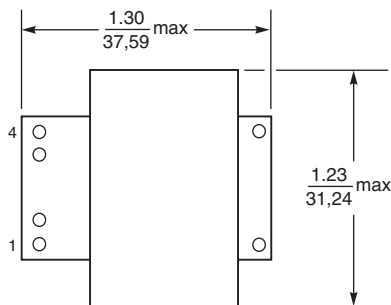
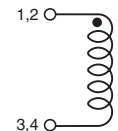
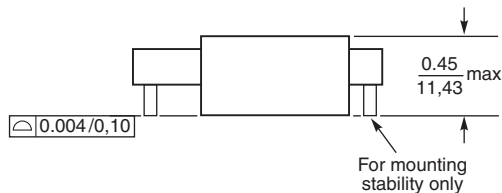
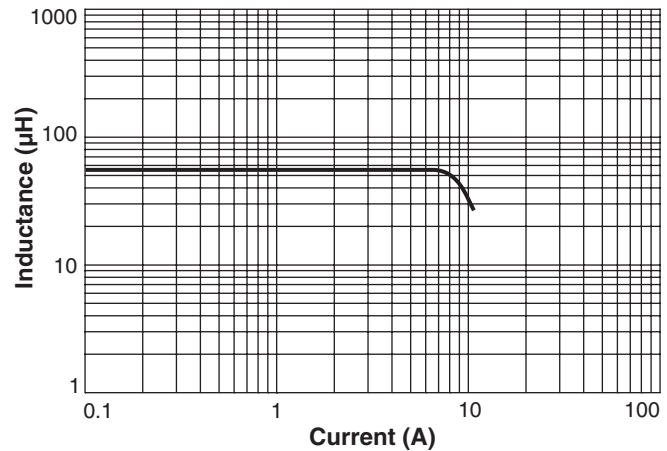
7. Electrical specifications at 25°C.

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

Typical L vs Frequency



Typical L vs Current



Weight: 31.0 g

Terminations: Matte tin over nickel over brass

Tape and reel: 125/13" reel 56 mm tape



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