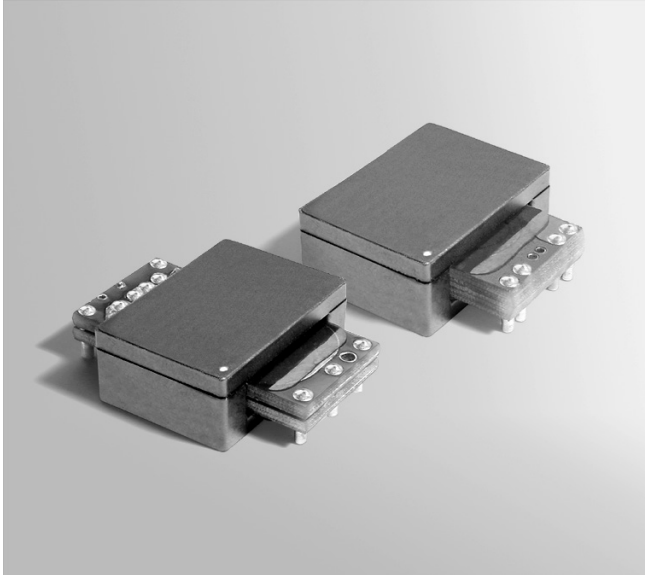


# Planar Magnetics

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](http://www.coilcraft.com).

## Transformer

Part number <sup>1</sup>	Output power (W)	Input voltage range (V)	Output voltage (V)	Output current (A rms)	Primary inductance <sup>1</sup> min (mH)	Leakage inductance <sup>2</sup> 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). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

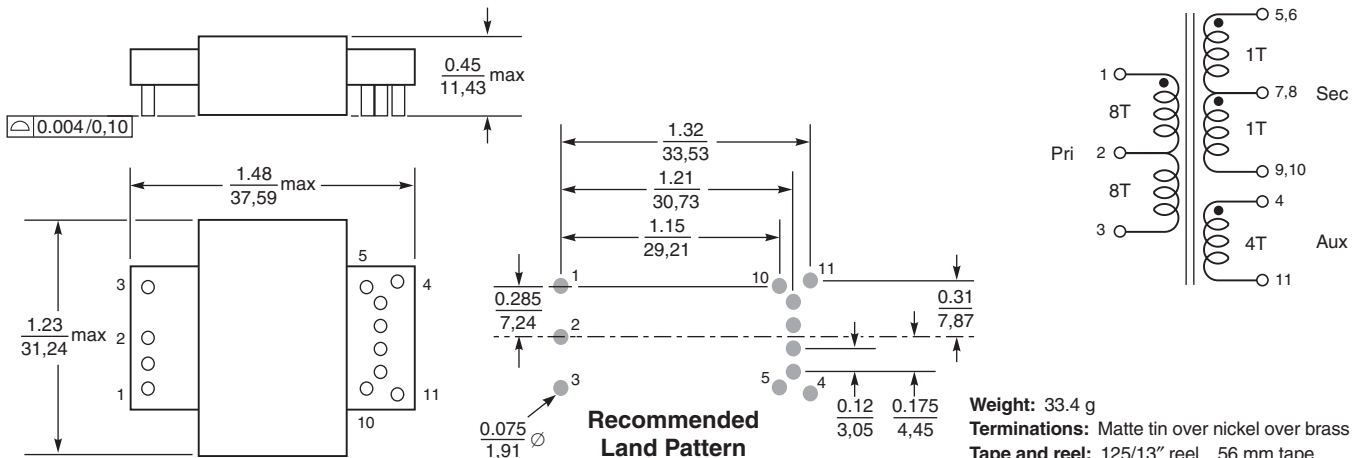
2. Inductance measured on an Agilent/HP 4284 between pins 1 and 3 at 250 kHz, 0.1 Vrms, 0 Adc.

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.



[www.coilcraft.com](http://www.coilcraft.com)

**US** +1-847-639-6400 [sales@coilcraft.com](mailto:sales@coilcraft.com)  
**UK** +44-1236-730595 [sales@coilcraft-europe.com](mailto:sales@coilcraft-europe.com)  
**Taiwan** +886-2-2264 3646 [sales@coilcraft.com.tw](mailto:sales@coilcraft.com.tw)  
**China** +86-21-6218 8074 [sales@coilcraft.com.cn](mailto:sales@coilcraft.com.cn)  
**Singapore** + 65-6484 8412 [sales@coilcraft.com.sg](mailto:sales@coilcraft.com.sg)

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# Planar Magnetics for National Semiconductor LM5041

## Output Inductor

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

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

**A9787-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 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.

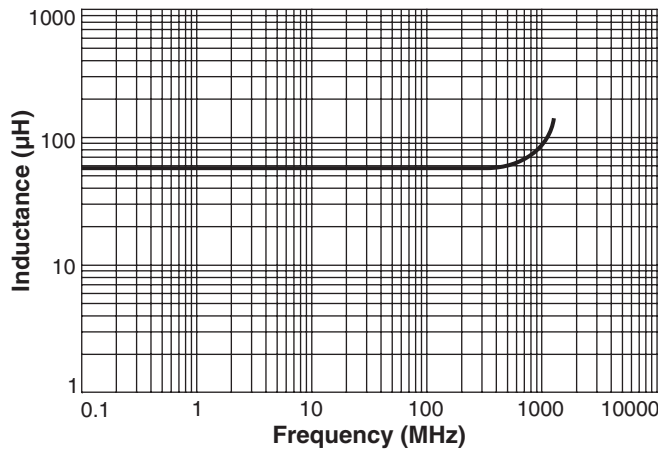
5. Current that causes a 40°C rise from 25°C ambient.

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

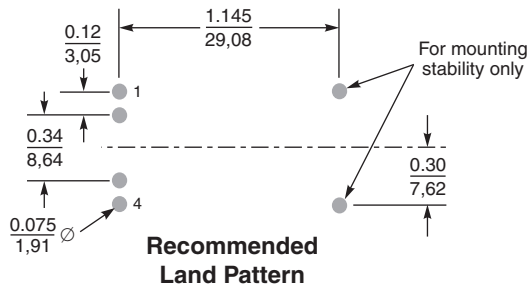
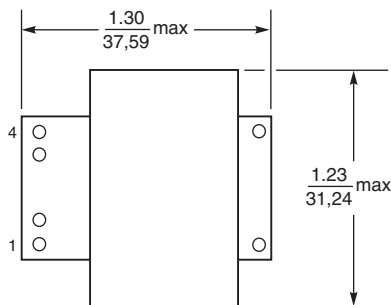
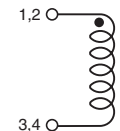
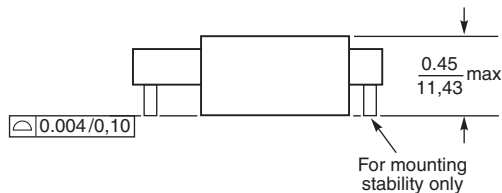
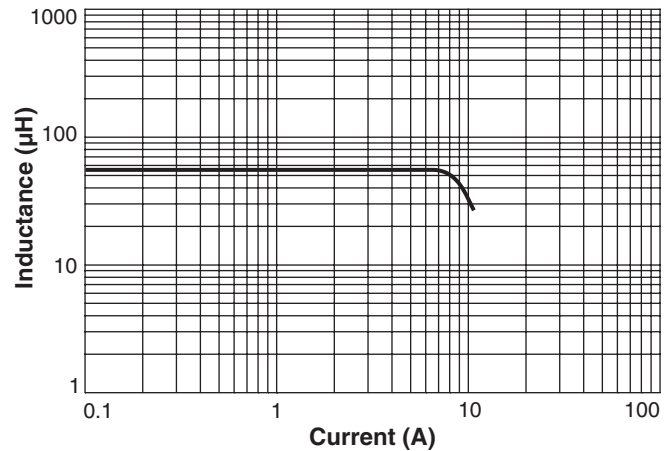
7. Electrical specifications at 25°C.

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



**US** +1-847-639-6400 sales@coilcraft.com  
**UK** +44-1236-730595 sales@coilcraft-europe.com  
**Taiwan** +886-2-2264 3646 sales@coilcraft.com.tw  
**China** +86-21-6218 8074 sales@coilcraft.com.cn  
**Singapore** + 65-6484 8412 sales@coilcraft.com.sg

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