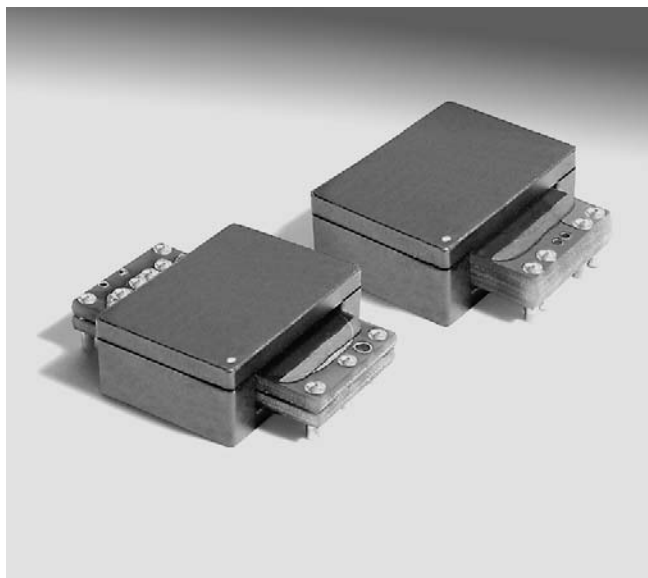


Planar Magnetics

For National Semiconductor
LM5041 IC



Coilcraft introduces a planar transformer and planar inductor 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.

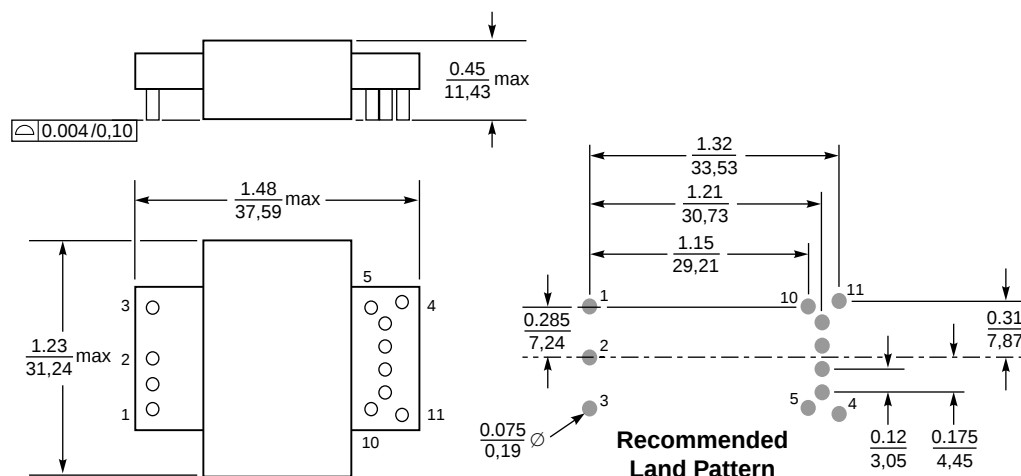
Request free evaluation samples by contacting Coilcraft or visiting www.coilcraft.com.

Transformer

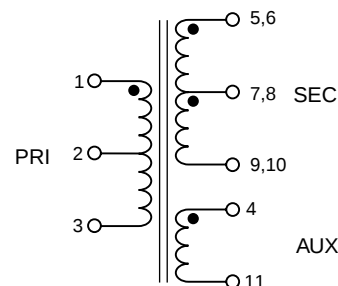
Part number	Output power (W)	Input voltage range (V)	Output voltage (V)	Output current (A rms)	Primary inductance ¹ min (mH)	Leakage inductance ² max (μH)	DCR max (mOhms)	Pri/sec isolation (Vdc)
A9786-A	150	36 – 75	2.5	60.0	1.25	0.90	Primary: 62.5 (1 – 3) Secondary: 0.91 (5,6 – 9,10) 180.0 (4 – 11)	1100

1. Inductance measured on an Agilent/HP 4284 between pins 1 and 3 at 250 kHz, 0.1 Vrms, 0 Adc.
2. Leakage inductance measured between pins 1 and 3 at 100 kHz, 0.1 Vrms, 0 Adc with all secondary pins shorted.
3. Operating temperature range: –40°C to +85°C.
4. Electrical specifications at 25°C.

Dimensions



Schematic



Coilcraft®

Specifications subject to change without notice. Document 328-1 Revised 01/28/03

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PRELIMINARY

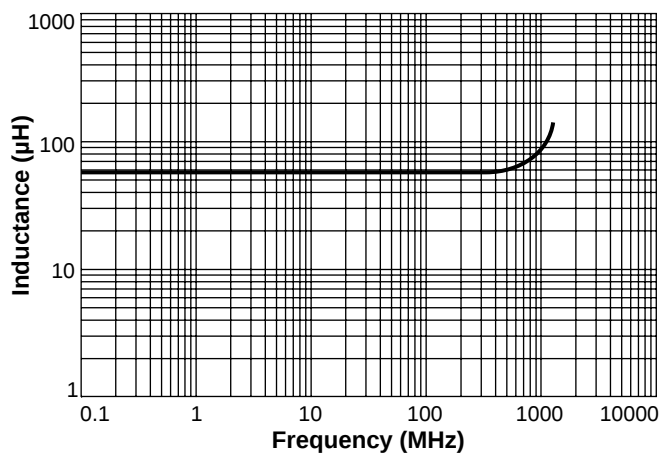
Planar Magnetics for National Semiconductor LM5041

Output Inductor

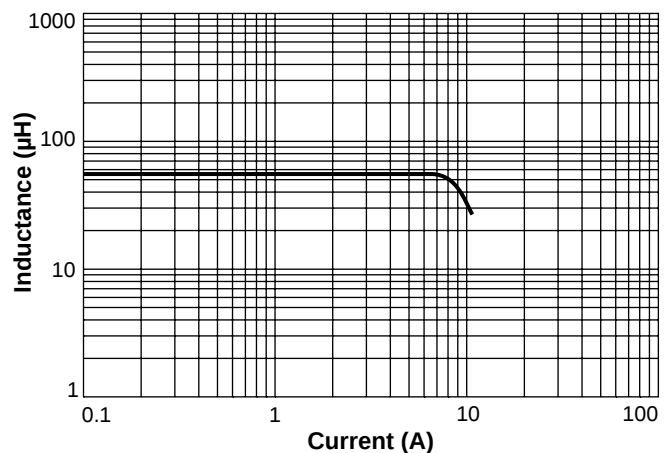
Part number	Inductance ¹ @ 0 Adc (μ H)	Inductance ¹ @ 7.5 Adc min (μ H)	DCR max (mOhms)	Isolation ² (Vdc)	Isat ³ (A)	Irms ⁴ (A)
A9787-A	57 $\pm$ 7%	47.0	17.0	1100	8.1	12.0

1. Inductance measured on an Agilent/HP 4284 at 250 kHz, 0.1 Vrms.
2. From pins 1,2 to core.
3. DC current at which inductance drops 10% (typ) from its value without current.
4. Average current for a 40°C rise above 25°C ambient.
5. Operating temperature range: -40°C to +85°C.
6. Electrical specifications at 25°C.

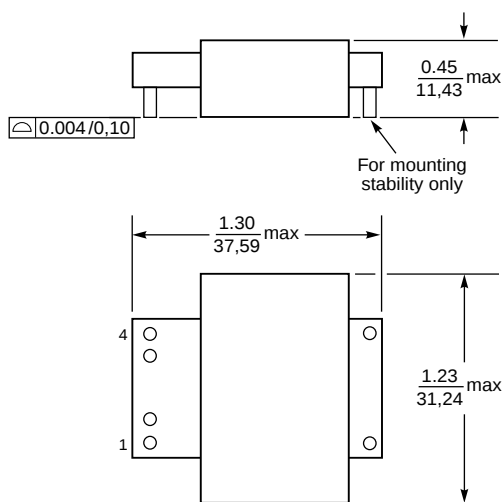
Typical L vs Frequency



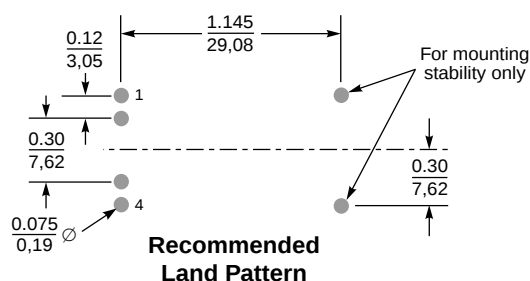
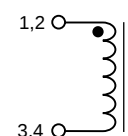
Typical L vs Current



Dimensions



Schematic

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Specifications subject to change without notice. Document 328-2 Revised 01/28/03

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