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.

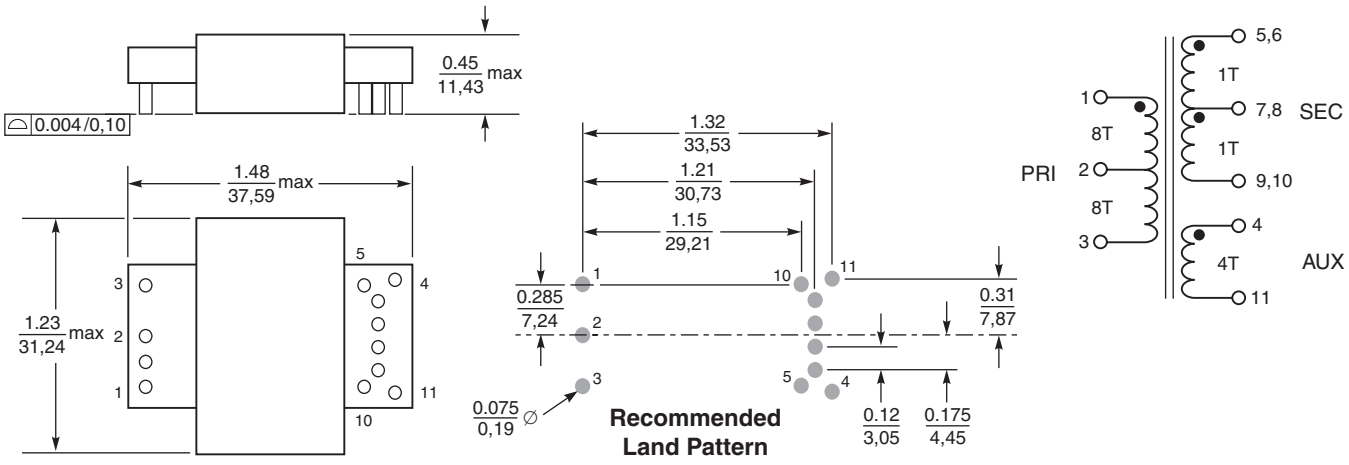
Planar magnetics offer high power densities along with great reliability and repeatability. Windings are etched into a printed circuit board, ensuring high efficiency and consistency.

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

Transformer

Part number	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) 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.



Terminations: Nickel/tin over brass

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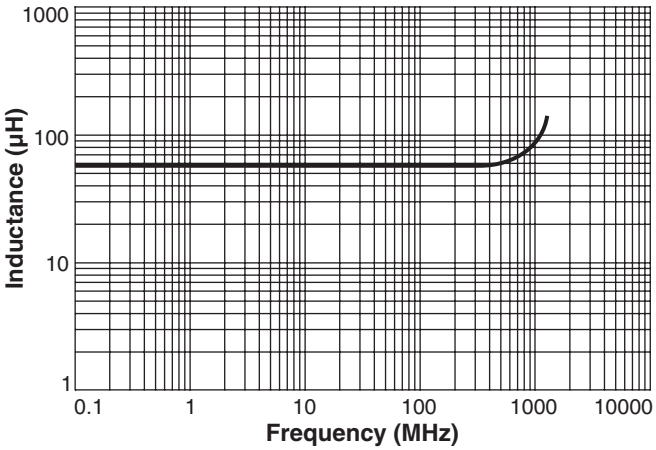
Output Inductor

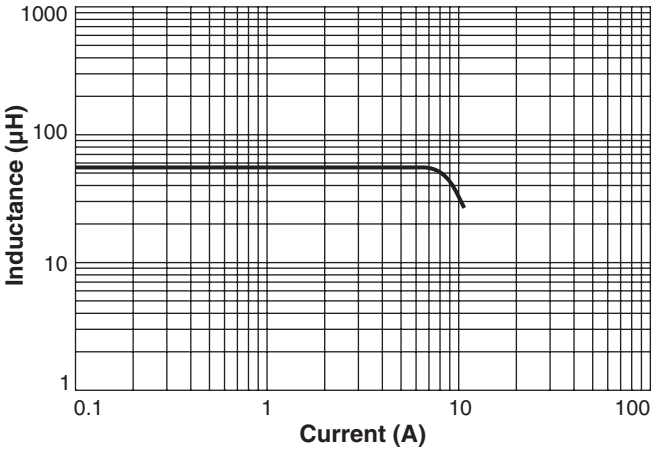
Part number	Inductance[1] @ 0 Adc (µH)	Inductance[1] @ 7.5 Adc min (µH)	DCR max (mOhms)	Isolation[2] (Vdc)	Isat[3] (A)	Irms[4] (A)
A9787-AL	57 ±7%	47.0	17.0	1100	8.1	12.0

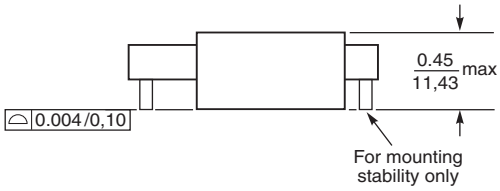
1. Inductance measured on an Agilent/HP 4284 at 250 kHz, 0.1 Vrms.
2. From pins 1,2 to core.
3. DC current at which inductance drops 10% (typ) from its value without current.
4. Average current for a 40°C rise above 25°C ambient.
5. Operating temperature range: –40°C to +85°C.
6. Electrical specifications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

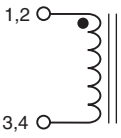
Typical L vs Frequency

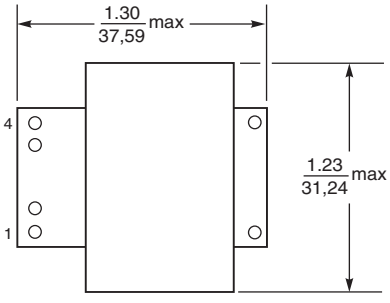


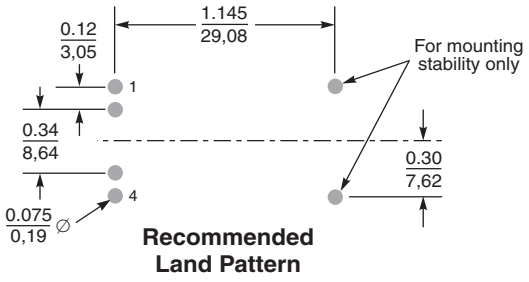
Typical L vs Current











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