

**NEW!**

# Planar Magnetics

For National Semiconductor  
LM5025 and LM5034



This planar transformer and planar inductor pair is designed specifically for the National Semiconductor LM5110 Gate Driver and LM5025 Active Clamp Voltage Mode PWM Controller. These parts are also specified by NSC for use with their LM5034 Dual Interleaved Controller.

The B0357-B transformer is engineered for use in high current telecom power supply applications that require high efficiency in a low-profile package.

The main winding of the B0358-C inductor serves as an output choke, while the auxiliary winding controls input current to the PWM.

Request free evaluation samples by contacting Coilcraft or visiting [www.coilcraft.com](http://www.coilcraft.com).

## Transformer

Part number	Output power (W)	Output voltage (V)	Output current (A rms)	Primary inductance <sup>1</sup> min (µH)	Leakage inductance <sup>2</sup> max (µH)	DCR max (mOhms)	Pri/sec isolation (Vdc)
B0357-B	100	3.3	30.0	320.0	0.55	Primary: 55.0 Secondary: 1.0	1500

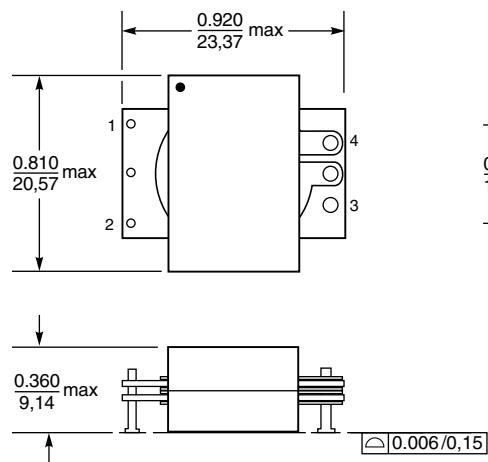
1. Inductance measured on an Agilent/HP 4284 between pins 1 and 2 at 250 kHz, 0.1 Vrms, 0 Adc.

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

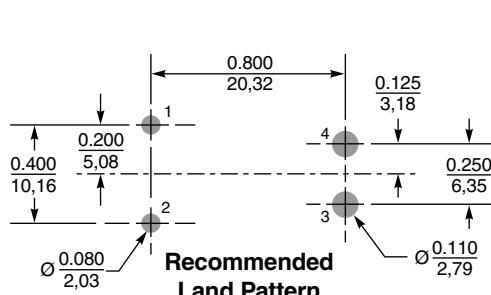
3. Storage and ambient operating temperature range: -40°C to +85°C.

4. Electrical specifications at 25°C.

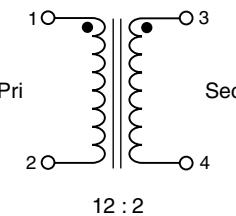
## Dimensions



Tape and reel: 200/13" reel 44 mm tape width



## Schematic



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Specifications subject to change without notice. Document 372-1 Revised 10/04/04

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**NEW!**

# Planar Magnetics for National Semiconductor LM5025

## Output Inductor

Part number	Inductance <sup>1</sup> at 0 Adc (μH)	I rated Adc	DCR max (mOhms)	Isolation <sup>2</sup> (Vdc)	Isat <sup>3</sup> (A)	Irms <sup>4</sup> (A)
B0358-C	2.0 ±10%	30	Main: 1.7 Aux: 900.0	1500	38	36

1. Inductance measured on an Agilent/HP 4284 between pins 3 and 4 at 10 kHz, 0.1 Vrms.

2. Isolation measured from pin 1 to pin 3.

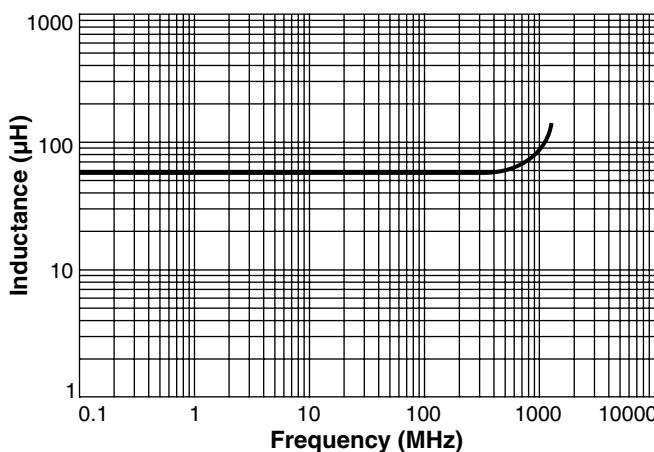
3. DC current at which inductance drops 10% (typ) from its value without current.

4. Average current for a 40°C rise above 25°C ambient.

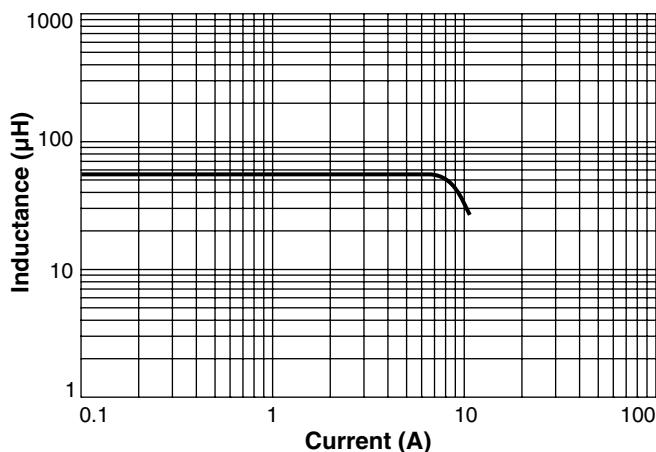
5. Storage and ambient operating temperature range: -40°C to +85°C.

6. Electrical specifications at 25°C.

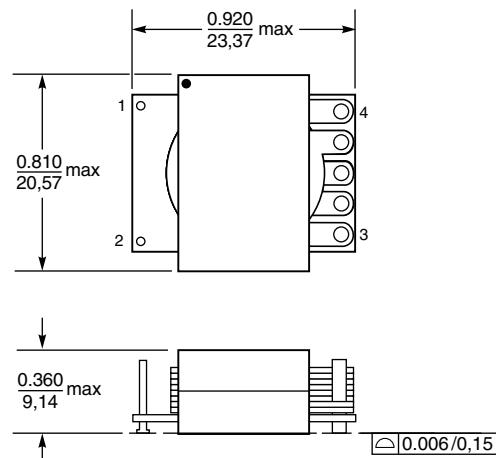
### Typical L vs Frequency



### Typical L vs Current

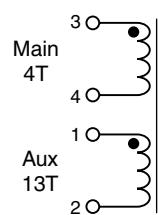
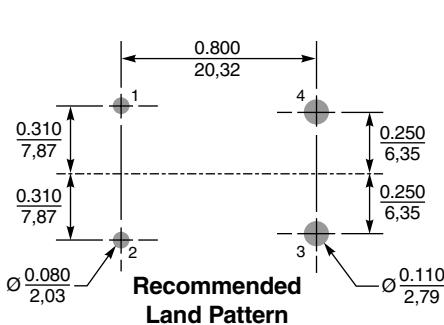


### Dimensions



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### Schematic



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