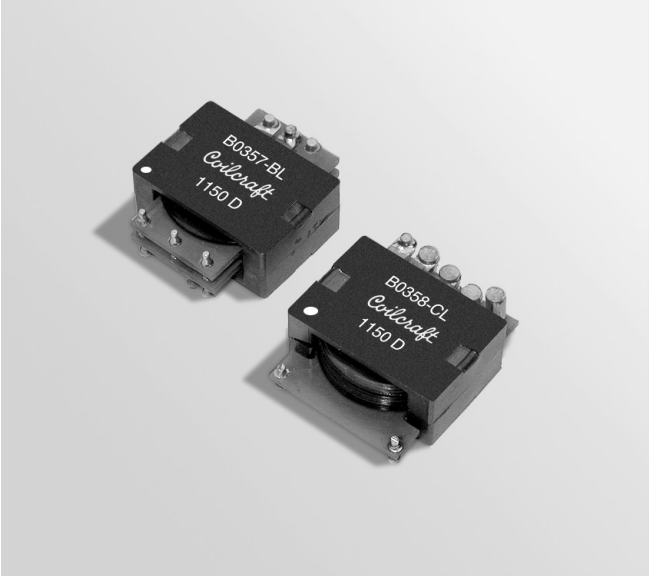
Planar Magnetics For National Semiconductor LM5025 and LM5034



Planar transformer and inductor pair designed for the NSC 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.

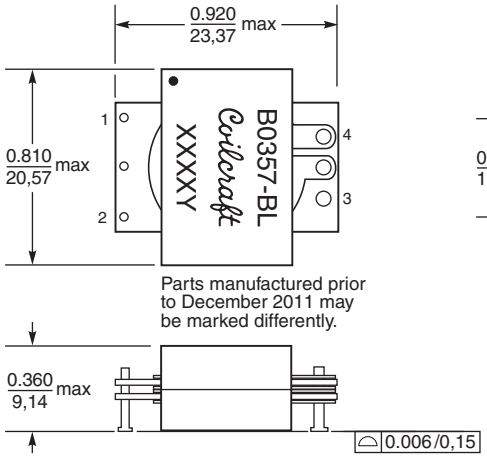
Core material Ferrite
Terminations RoHS Matte-tin over nickel over brass
Weight 11.3 – 11.7 g
Ambient temperature –40°C to +85°C
Storage temperature Component: –40°C to +85°C. Tape and reel packaging: –40°C to +80°C
Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles
Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)
Failures in Time (FIT) / Mean Time Between Failures (MTBF) 38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332
Packaging 200 per 13″ reel Plastic tape: 44 mm wide, 0.37 mm thick, 32 mm pocket spacing, 9.4 mm pocket depth
PCB washing Only pure water or alcohol recommended

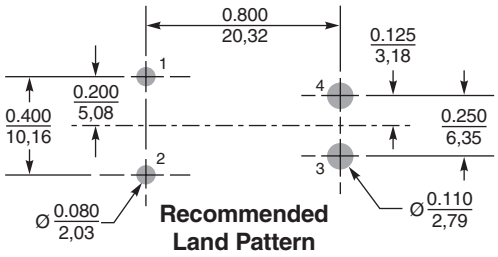
Transformer

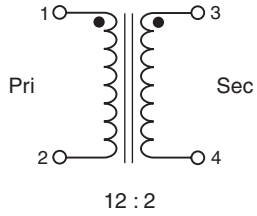
Part number[1]	Output power (W)	Output voltage (V)	Output current (A rms)	Primary inductance[2] min (µH)	Leakage inductance[3] max (µH)	DCR max (mOhms)	Pri/sec isolation (Vdc)
B0357-BL_	100	3.3	30.0	320.0	0.55	Primary: 55.0 Secondary: 1.0	1500

1. When ordering, please specify **packaging** code:
B0357-BLD
Packaging: **D** = 13″ machine ready reel. EIA-481 embossed plastic tape (200 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 2 at 250 kHz, 0.1 Vrms, 0 Adc.
3. Leakage inductance measured between pins 1 and 2 at 100 kHz, 0.1 Vrms, 0 Adc with secondary pins shorted.
4. Electrical specifications at 25°C.
Refer to Doc 362 “Soldering Surface Mount Components” before soldering.







Dimensions are in inches / mm

Coilcraft
www.coilcraft.com

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

Document 372-1 Revised 12/19/11

Planar Magnetics for NSC LM5025 and LM5034

Output Inductor

Part number[1]	Inductance[2] at 0 Adc (µH)	DCR max (mOhms)	Isolation[3] (Vdc)	Isat[4] (A)	Irms[5] (A)
B0358-CL_	2.0 ±10%	Main: 2.0 Aux: 900.0	1500	32	36

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

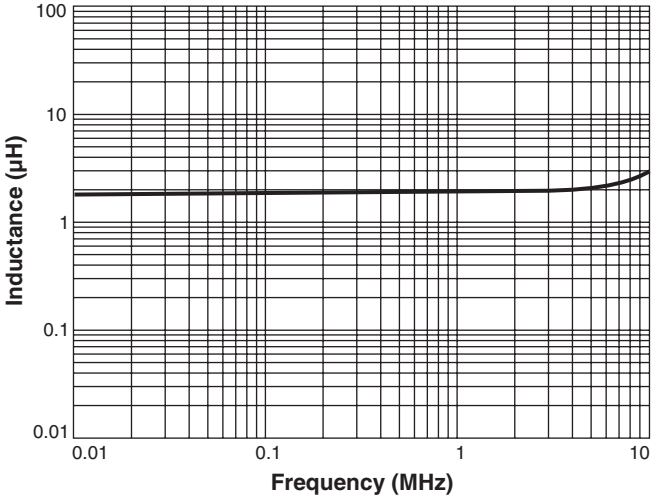
B0358-CLD

Packaging: **D** = 13″ machine ready reel. EIA-481 embossed plastic tape (200 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.

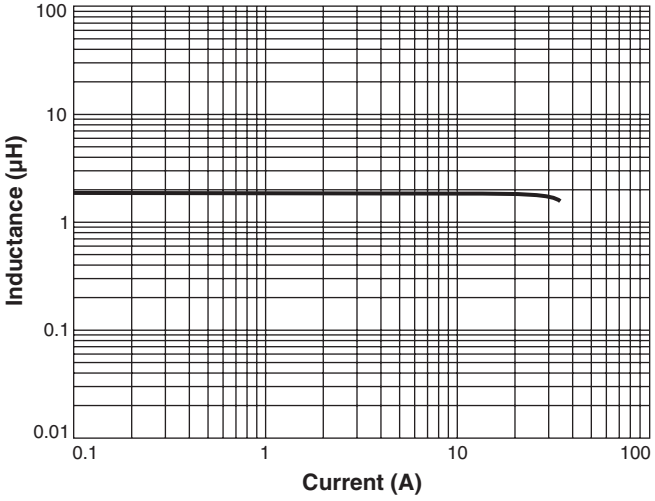
2. Inductance measured on an Agilent/HP 4284 between pins 3 and 4 at 250 kHz, 0.1 Vrms.
3. Isolation measured from pin 1 to pin 3.
4. DC current at which inductance drops 10% (typ) from its value without current.
5. Electrical specifications at 25°C.

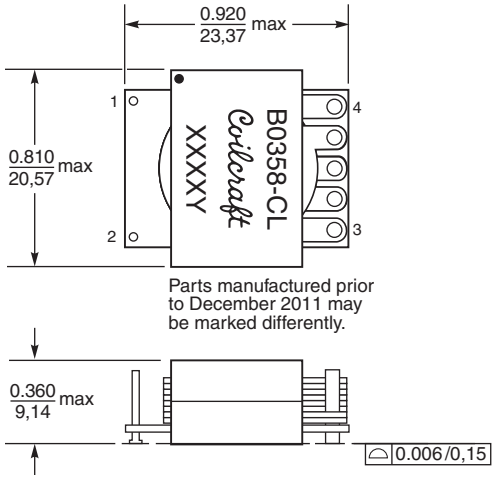
Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

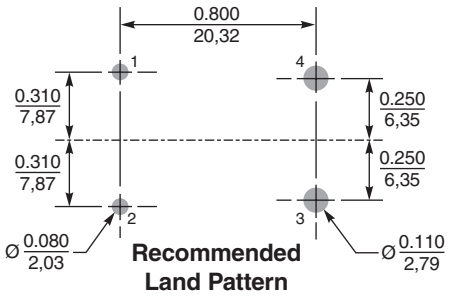
Typical L vs Frequency

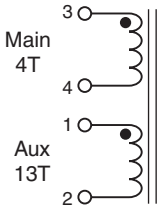


Typical L vs Current









Dimensions are in inches / mm

Coilcraft
www.coilcraft.com

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

Document 372-2 Revised 12/19/11