



# PRELIMINARY

# VDSL Transformer

For Broadcom BCM96358  
and BCM6505

This line driver transformer has been designed for the Broadcom BCM96358M Reference design. It is used with their BCM6505 on the VDSL side of the router.

It features very low leakage inductance and 2500 Vrms primary-secondary isolation. Primary inductance is stable from -40°C to +85°C and the longitudinal bal-

ance is optimized for the best overall performance at the VDSL transmission speeds.

Coilcraft can also custom design a transformer for your specific application. To request free evaluation samples, please contact Coilcraft or visit [www.coilcraft.com](http://www.coilcraft.com).

| Part number <sup>1</sup> | Turns ratio<br>line : chip | Chip side<br>inductance <sup>2</sup><br>±7% (µH) | Leakage<br>inductance <sup>3</sup><br>max (µH) | DCR max (Ohms)             |                            | Longitudinal<br>balance<br>min (dB) | THD<br>max (dB) |
|--------------------------|----------------------------|--|--|----------------------------|----------------------------|-------------------------------------|-----------------|
|                          |                            |  |  | chip side                  | line side                  |                                     |                 |
| D1894-BL_                | 2 : 1                      | 420.0  | 1.3  | 0.515 (1-3)<br>0.515 (2-4) | 0.290 (7-6)<br>0.239 (8-5) | 55.0 (10.0 MHz)                     | -75             |

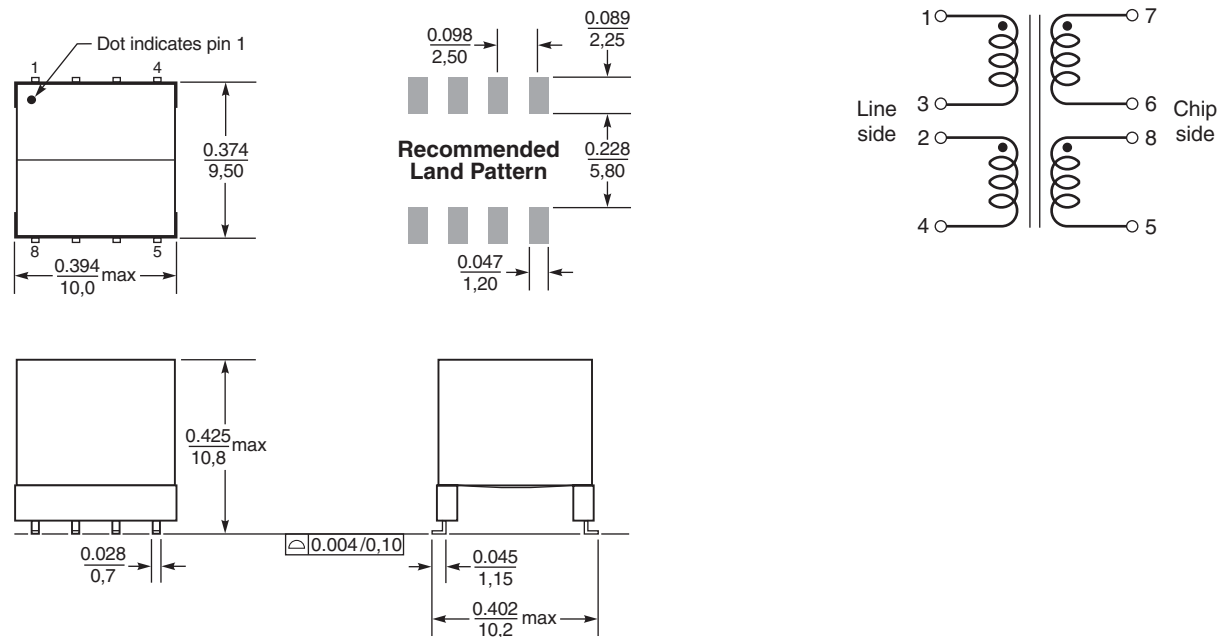
1. When ordering, please specify **packaging** code:

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**D1894-BL D**

**Packaging:** **D** = 13" machine-ready reel. EIA-481 embossed plastic tape (350 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.

- Inductance measured at 10 kHz, 0.1 Vrms, 0 Adc with windings connected in series.
- Leakage inductance measured at 100 kHz, 0.1 Vrms, 0 Adc from pins 1 to 4 with all other pins shorted.
- Capacitance measured at 100 kHz, 0.1 Vrms, 0 Adc from chip side to line side.
- Operating temperature range -40°C to +85°C.
- Electrical specifications at 25°C.



**Terminations:** Tin-silver over tin over nickel over phos bronze

**Tape and reel:** 350/13" reel 24 mm tape width

For packaging data see Tape and Reel Specifications section.

# Coilcraft®

Specifications subject to change without notice.  
Please check our website for latest information.

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1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>