

# SMT Gate Drive Transformer



- Designed for transformer coupled MOSFET and IGBT gate drive circuits; operating frequency: 50 kHz to 2 MHz.
- 2250 Vdc, one minute primary to secondary isolation
- Requires only 56 mm<sup>2</sup> of board space.
- Specified by National Semiconductor on AN-1521 for their POE+PHYTEREV-I/-E evaluation boards.
- Specified on the Microsemi PD70211EVB51F-12 evaluation board

**Core material** Ferrite

**Terminations** RoHS compliant tin-silver over tin over nickel over phosphorus bronze

**Weight** 700 mg

**Ambient temperature** -40°C to +125°C

**Storage temperature** Component: -40°C to +125°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)

**Packaging** 175/7" reel; 750/13" reel Plastic tape: 24 mm wide, 0.4 mm thick, 12 mm pocket spacing, 7.0 mm pocket depth

**PCB washing** Tested with pure water or alcohol only. For other solvents, see Doc787\_PCB\_Washing.pdf

Part number <sup>1</sup>	Turns ratio	Primary inductance <sup>2</sup> min (µH)	Leakage inductance <sup>3</sup> max (µH)	Primary DCR max (Ohms)	Secondary DCR max (Ohms)	Volt-time product <sup>4</sup> (V-µsec)	SRF min <sup>5</sup> (MHz)	Capacitance pri to sec max (pF)
FA2659-AL_	1 : 1	296.0	1.5	0.795	0.655	34.2	1.39	21.9

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

**FA2659-ALC**

**Packaging:** **C** = 7" machine-ready reel. EIA-481 embossed plastic tape (175 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

**D** = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (750 parts per full reel).

**B** = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc

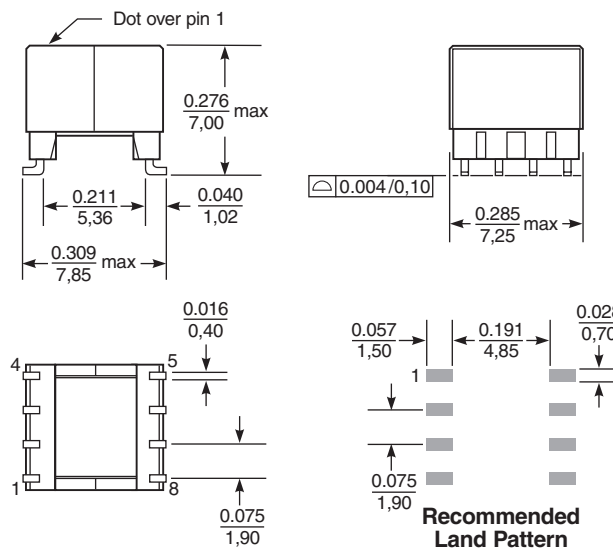
3. Leakage inductance measured at 100 kHz, 0.1 Vrms with secondary pins shorted.

4. Based on Bsat of the core at 25°C and number of turns of the primary.

5. SRF measured with coils connected in series using an Agilent/HP 4192 or equivalent.

6. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

