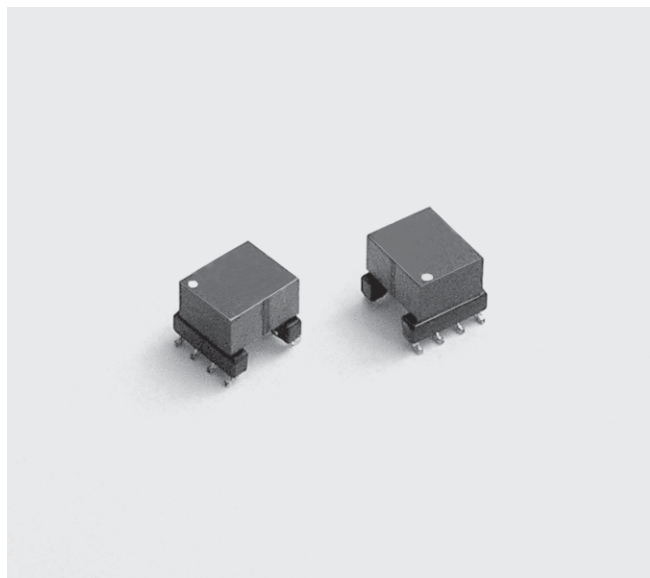




# SMT Gate Drive Transformer



- Designed for transformer coupled MOSFET and IGBT gate drive circuits; operating frequency: 50 kHz to 2 MHz.
- 2250 Vdc 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.

**Core material** Ferrite

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

**Weight** 700 mg

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

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

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** 175/7" reel; 750/3" reel Plastic tape: 16 mm wide, 0.36 mm thick, 12 mm pocket spacing, 7.24 mm pocket depth

**PCB washing** Only pure water or alcohol recommended

| 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 (150 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 C instead.

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

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

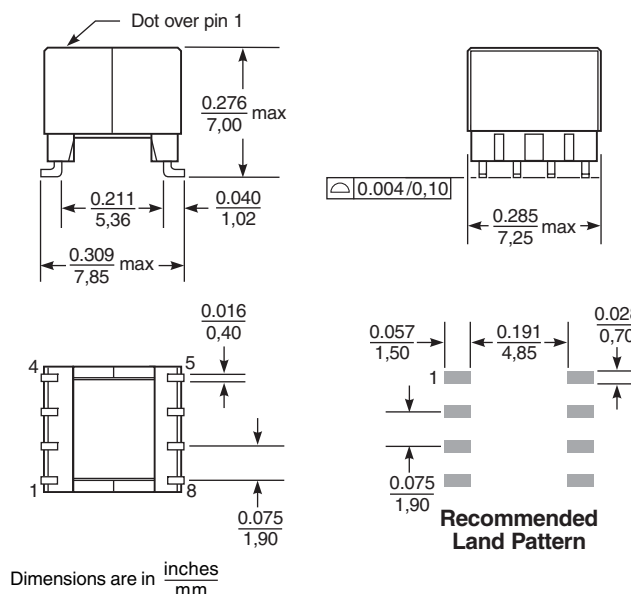
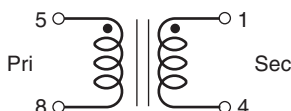
3. Leakage inductance measured at 100 kHz, 0.1 Vrms with secondary pins shorted.

4. Based on Bs at 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.



**Coilcraft**®

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Please check our website for latest information.

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