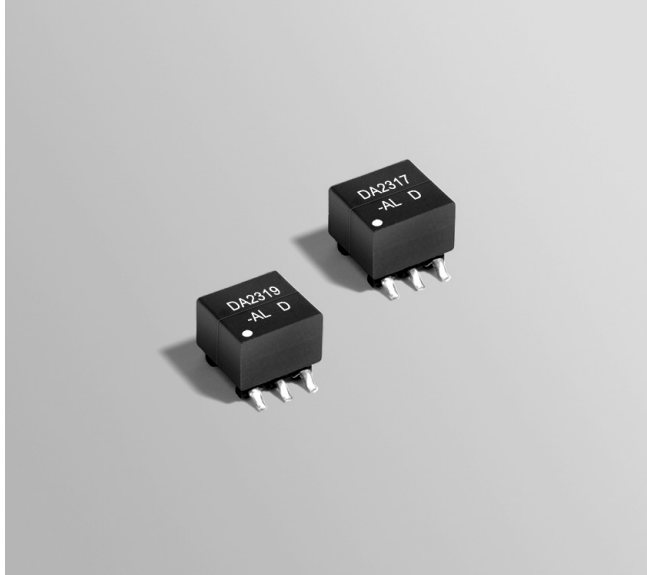


# SMT Gate Drive Transformers



- Designed for high switching speed, transformer coupled MOSFET and IGBT gate drive circuits.
- Operating frequency: 50 kHz – 2.5 MHz
- Primary to secondary isolation: 1500 Vdc. For DA2317-AL and DA2320-AL, isolation between secondaries is 500 Vdc.

**Core material** Ferrite

**Terminations** RoHS compliant tin-silver over tin over nickel over phos bronze. Other terminations available at additional cost.

**Weight** 535 – 615 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** 250/7" reel; 1000/13" reel Plastic tape: 16 mm wide, 0.5 mm thick, 20 mm pocket spacing, 5.54 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 pri : sec	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 (V-μsec)	SRF min <sup>4</sup> (MHz)	Capacitance pri to sec max (pF)
DA2319-AL_	1 : 1	296.0	1.5	0.795	0.655	25.8	1.75	14.0
DA2318-AL_	1.5 : 1	680.0	4.0	1.65	0.860	40.8	1.25	14.0
DA2320-AL_	1 : 1 : 1	264.0	0.30	1.50	1.50 (2-5; 3-4)	24.5	2.50	95.0
DA2317-AL_	2 : 1 : 1	330.0	0.60	1.40	0.650 (2-5); 0.790 (3-4)	24.5	2.00	18.0

1. When ordering, please specify **termination** and **packaging** codes:

DA2320-ALC

**Termination: L** = RoHS compliant tin-silver over tin over nickel over phos bronze

**Special order**, added cost:

**S** = non-RoHS tin-lead (63/37)

**Packaging: C** = 7" machine-ready reel. EIA-481 embossed plastic tape (250 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

**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.

**D** = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (1000 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.

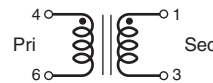
4. SRF measured with coils connected in series using an Agilent/HP 4192 or equivalent.

5. Operating temperature range –40°C to +125°C.

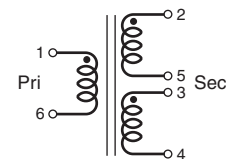
6. Electrical specifications at 25°C.

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

DA2318-AL, DA2319-AL



DA2317-AL, DA2320-AL



**PRELIMINARY**



# SMT Gate Drive Transformers - DA23xx

