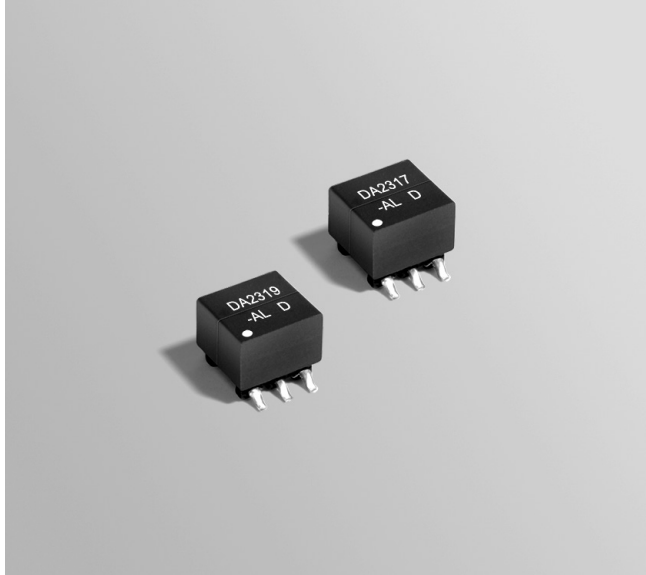


# SMT Gate Drive Transformers



- Designed for high switching speed, transformer coupled MOSFET and IGBT gate drive circuits.
- Operating frequency: 50 kHz – 2 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)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**

38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

**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).

**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 (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.

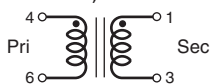
4. SRF measured with coils connected in series using an Agilent/HP 4192 or equivalent.

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

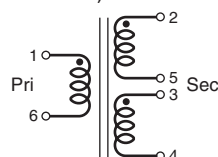
6. Electrical specifications at 25°C.

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

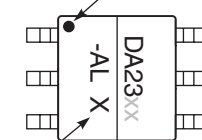
DA2318-AL, DA2319-AL



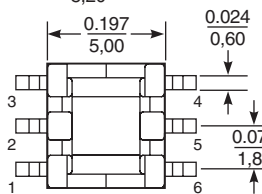
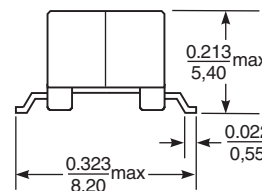
DA2317-AL, DA2320-AL



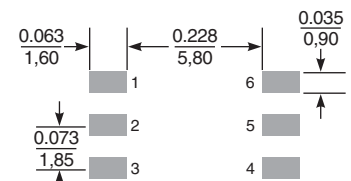
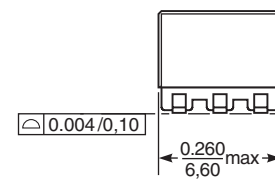
Dot indicates pin 1



Internal code



Dimensions are in inches/mm



Recommended Land Pattern



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