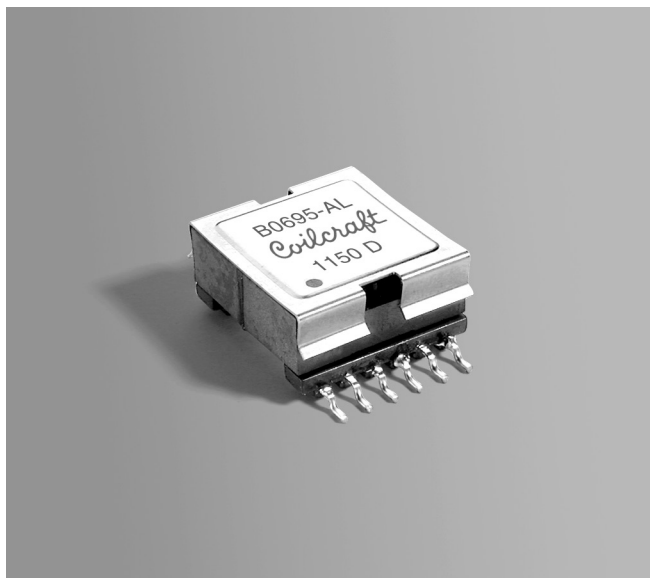




# Flyback Transformer

For National Semiconductor  
LM5020 PWM Controller



- Designed to operate up to 1 MHz with 36 –72 V input.
- 3.3V, 4.5A output with secondary windings connected in parallel. Bias output is 12 V.
- Ideal for 13 W, IEEE 802.3af-compliant, PoE applications.

**Core material** Ferrite

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

**Weight** 12.8 g

**Ambient temperature** –40°C to +85°C

**Storage temperature** Component: –40°C to +85°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** 175 per 13" reel Plastic tape: 44 mm wide, 0.4 mm thick, 32 mm pocket spacing, 11.9 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>	L at 0 A <sup>2</sup> ±10% (µH)	L at I <sub>pk</sub> <sup>3</sup> ±10% (µH)	DCR max (Ohms) <sup>4</sup>			Leakage L (µH) <sup>5</sup>	Turns ratio <sup>6</sup>		Capacitance <sup>7</sup> (pF)	I <sub>pk</sub> <sup>3</sup> (A)	Isolation <sup>8</sup> (Vrms)
			pri	aux	sec		pri : sec	pri : bias			
B0695-AL_	110	99.0	0.133	0.656	0.019	1.11	1 : 0.23	1 : 0.69	110	1.5	1500

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

**B0695-ALD**

**Packaging:** D = 13" machine ready reel. EIA-481 embossed plastic tape (175 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.

2. Inductance is for the primary, measured at 10 kHz, 0.1 Vrms, 0 Adc.

3. I<sub>pk</sub> is the peak current drawn at minimum input voltage.

4. DCR for the secondary is per winding.

5. Leakage inductance measured between pins 4 and 6 with all other pins shorted.

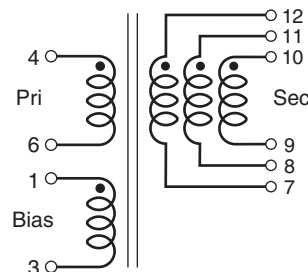
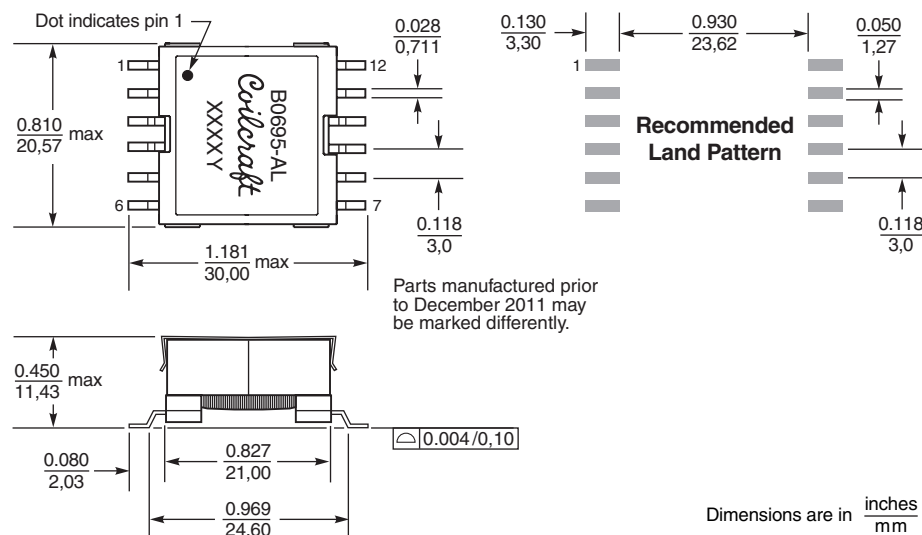
6. Turns ratio is with the secondary windings connected in parallel.

7. Capacitance measured between pins 3 and 4 with other pins shorted.

8. Isolation is measured from the primary and bias to the secondary.

9. Electrical specifications at 25°C.

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



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



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