



# Flyback Transformer

For National Semiconductor LM5020 PWM Controller



- Designed to operate up to 1 MHz with 36 –72 V input.
- 3.3 V, 4.5 A 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.  
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** Only pure water or alcohol recommended

Part number <sup>1</sup>	L at 0 A <sup>2</sup> ±10% (µH)	L at Ipk <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)	Ipk <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-AL D**

**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. Ipk 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.

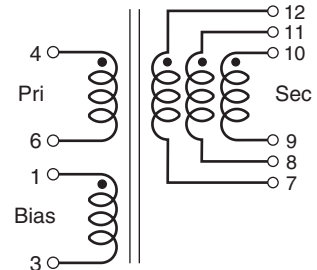
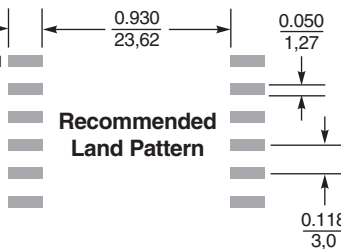
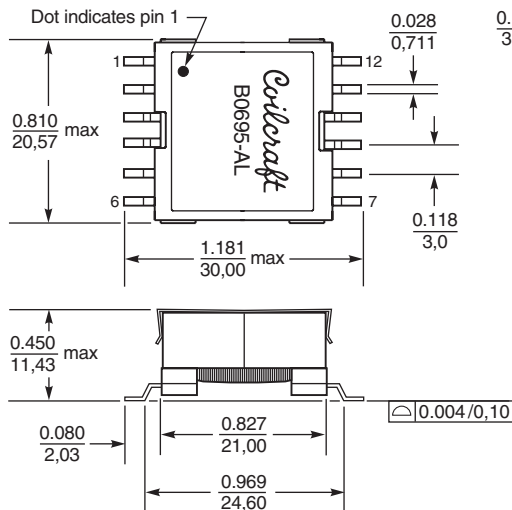
6. Turns ratio is with the secondary windings connected in parallel.

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.



Secondary windings to be connected in parallel on PCB board.



Specifications subject to change without notice. Please check our website for latest information.

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