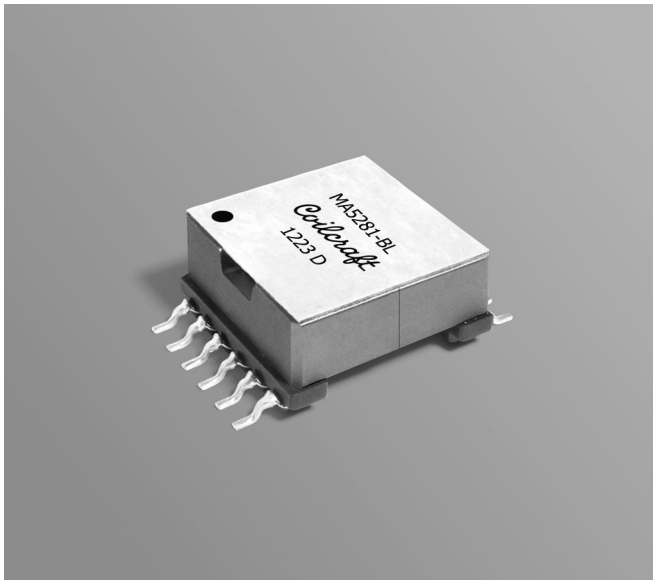
Flyback Transformer

For TI TPS23756 15 W PoE Converter



- Flyback for Texas Instruments TPS23756 Wide Input Range 15 W PoE Converter; shown on PMP6659 schematic and BOM
- Input: 10.8 – 57 V
- 1500 Vrms, one minute isolation from primary and bias to secondary

Core material Ferrite

Terminations RoHS tin-silver (96.5/3.5) over tin over nickel over phos bronze. Other terminations available at additional cost.

Weight 11.3 g

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 175 per 13″ reel Plastic tape: 44 mm wide, 0.4 mm thick, 28 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[1]	L at 0 A[2] ±10% (µH)	L at Ipk[3] min (µH)	DCR max (Ohms)[4] pri	sec	bias	drive	Leakage L[5] max (µH)	Turns ratio[6] pri:sec	pri:bias	pri:drive	Ipk[3] (A)	Output[7]
MA5281-BL_	45	40.5	0.060	0.058	0.370	0.323	0.550	1 : 0.57	1 : 0.57	1 : 0.52	2.8	12 V, 1.25 A

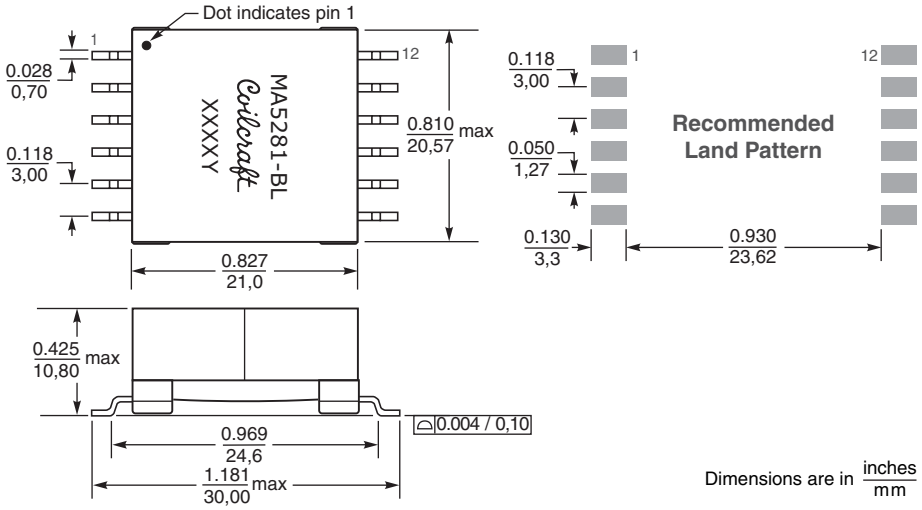
1. When ordering, please specify a **packaging** code:

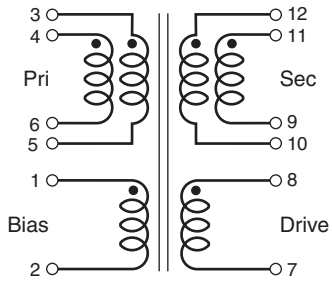
   MA5281-BLD

   Packaging: D = 13″ machine ready reel. EIA-481 embossed plastic tape (175 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 D instead.
2. Inductance is measured at 250 kHz, 0.1 Vrms, 0 Adc.
3. Peak primary current drawn at minimum input voltage.
4. DCR for the primary and the secondary is measured with windings connected in parallel.
5. Leakage inductance is for the primary, measured with the windings connected in parallel and the secondary windings shorted.
6. Turns ratio is with the primary windings and secondary windings connected in parallel.
7. Output is with the secondary windings connected in parallel. Output of the drive winding is 11 V, 15 mA. Output of the bias winding is 11.5 V, 15 mA.
8. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.





Primary windings and secondary windings to be connected in parallel on PC board

Coilcraft
www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 1053 Revised 05/01/13