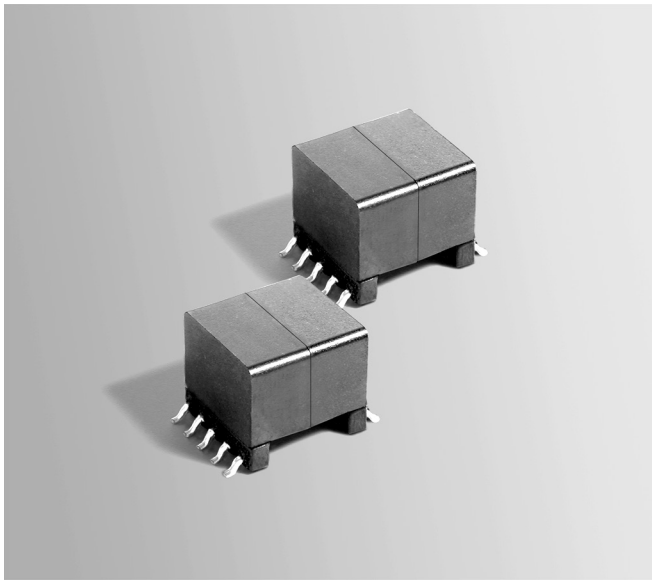
Flyback Transformers

For MPS MP8007 Flyback Reference Design



- Designed for Monolithic Power Systems MP8007 Flyback Reference Design for IEEE802.3af compliant PoE applications.
- Operates in continuous conduction mode with 36 – 57 V input.
- 1500 Vrms, 5 mA, one minute isolation (hipot) between primary and auxiliary to secondary.

Core material Ferrite

Terminations RoHS tin-silver-copper over tin over nickel over phos bronze.

Weight 6.0 – 6.2 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: 32 mm wide, 0.5 mm thick, 28 mm pocket spacing, 12.93 mm pocket depth

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

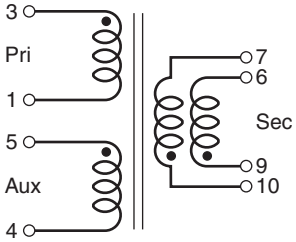
Part number[1]	Power (W)	Inductance at 0 A[2] ±10% (µH)	DCR max (Ohms)[3] pri	aux	sec	Leakage inductance[4] max (µH)	Turns ratio[5] pri : aux : sec	Ipk[6] (A)	Output[7]
CX9628-AL_	12	43.7	0.095	0.094	0.009	1.00	1 : 0.25 : 0.20	2.0	5 V, 2.5 A
CX9629-AL	12	42.9	0.10	0.10	0.02	1.00	1 : 0.25 : 0.45	2.0	12 V, 1.0 A
CX9649-AL	12	45.3	0.10	0.10	0.09	1.00	1 : 0.25 : 0.90	2.0	24 V, 0.5 A

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

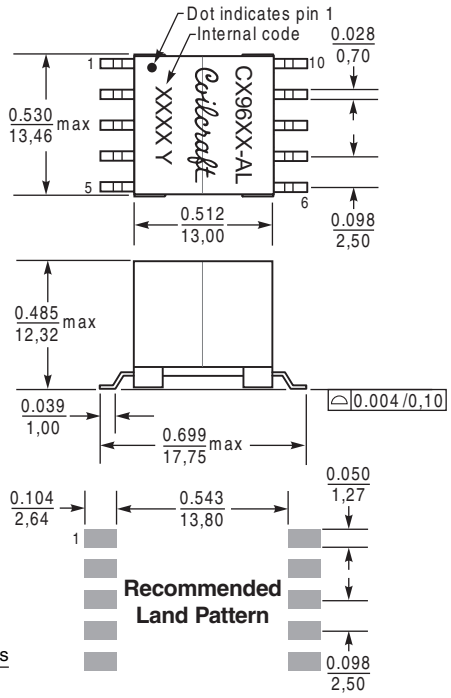
   CX9629-ALD

   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 for the primary, measured at 100 kHz, 0.1 Vrms, 0 Adc.
3. DCR for the secondary is with both windings connected in parallel.
4. Leakage inductance measured between pins 1 and 3 with all other pins shorted.
5. Turns ratio is with the secondary windings connected in parallel.
6. Peak primary current drawn at minimum input voltage.
7. Output is with the secondary windings connected in parallel.
8. Electrical specifications at 25°C.

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



Secondary windings to be connected in parallel on PC board



Dimensions are in inches / mm

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