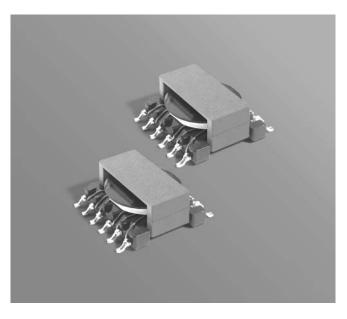
## Miniature Flyback Transformers for PoE



With a footprint roughly 16.5 mm square and with a height less than 7.5 mm, these are very space-efficient Power over Ethernet (PoE) transformers. They are designed for 6 Watt, IEEE 802.3af-compliant applications for powered devices (PD).

These transformers feature interleaved primary and secondary windings to minimize leakage inductance, and a separate bias winding. Isolation is 1500 Vrms between the primary and secondary windings.

There are versions for continuous and discontinuous modes of operation, each designed to operate at a 250 kHz switching frequency. Input is 36-72 Volts and the output of the bias winding is 12 V, 0.2 A.

Coilcraft **Designer's Kit C182** contains samples of all parts. To order, contact Coilcraft or visit **http://order.coilcraft.com** to purchase on-line.

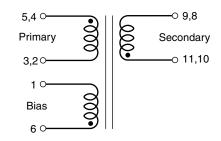
Part	Power	Inductance at 0 A <sup>2</sup>	Inductance at Ipk <sup>3</sup>	DCR max (Ohms)			Leakage inductance <sup>4</sup>	Turns ratio		Ipk <sup>3</sup>	Secondary
number <sup>1</sup>	(W)	±10% (µH)	min (µH)	pri	sec	bias	max (µH)	pri/sec	pri/bias	(A)	output
Continuous mode <sup>5</sup>											
POE60C-18_	6	167.0	150.3	0.303	0.017	0.570	7.8	16	2.9	0.62	1.8 V, 3.3 A
POE60C-25_	6	177.0	159.3	0.353	0.027	0.660	7.0	12	3.0	0.60	2.5 V, 2.4 A
POE60C-33_	6	184.0	165.6	0.286	0.026	0.515	4.0	10	3.0	0.57	3.3 V, 1.8 A
POE60C-50_	6	193.0	173.7	0.344	0.043	0.660	8.0	7	2.9	0.55	5.0 V, 1.2 A
POE60C-12_	6	204.0	183.6	0.293	0.083	0.545	5.8	3	3.0	0.52	12.0 V, 0.5 A
Discontinuous mode											
POE60D-18_	6	75.0	67.5	0.311	0.018	0.575	6.7	16	2.9	1.0	1.8 V, 3.3 A
POE60D-25_	6	80.0	72.0	0.219	0.017	0.388	5.0	12	3.0	0.95	2.5 V, 2.4 A
POE60D-33_	6	85.0	76.5	0.285	0.026	0.530	4.0	10	3.0	0.90	3.3 V, 1.8 A
POE60D-50_	6	90.0	81.0	0.271	0.033	0.529	3.1	7	2.8	0.85	5.0 V, 1.2 A
POE60D-12_	6	95.0	85.5	0.265	0.074	0.484	2.4	3	3.0	0.80	12.0 V, 0.5 A

1. When ordering, please specify packaging code:

## POE60D-12 D

Packaging: D = 13" machine-ready reel. EIA-481 embossed plastic tape (400 parts per full reel).

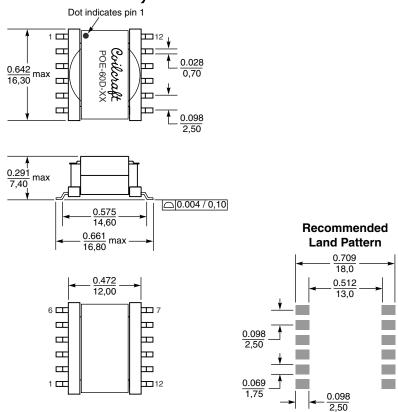
- B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter D instead.
- 2. Inductance is measured at 250 kHz, 0.5 Vrms.
- 3. Peak primary current drawn at minimum input voltage.
- Leakage inductance is for the primary winding with the secondary winding shorted
- Designed to remain in continuous mode operation at power levels of 3 Watts and above.
- 6. Operating temperature range -40°C to +125°C.
- 7. Electrical specifications at 25°C.







## **Miniature Flyback Transformers for PoE**



**Tape and reel:** 400/13" reel 32 mm tape width For packaging data see Tape and Reel Specifications section.

