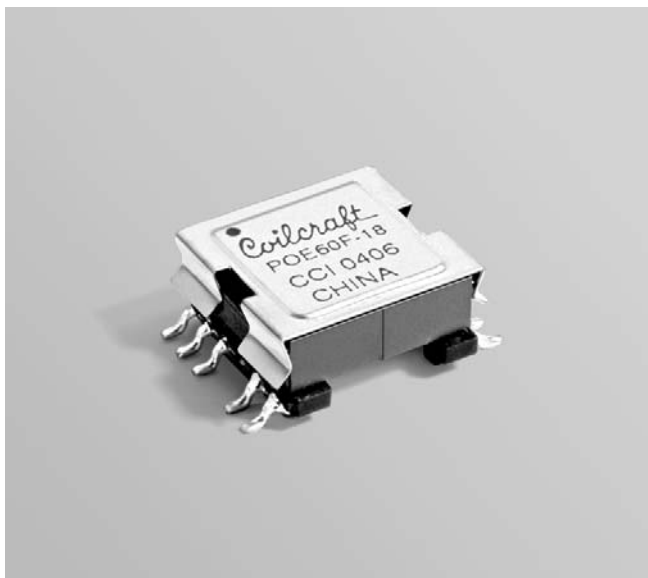


**NEW!**

# SMT PoE Transformers



This series of transformers is designed specifically for Powered Devices (PD) in IEEE 802.3af-compliant Power over Ethernet (PoE) applications.

They 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.

Coilcraft's PoE transformers are available in 6 Watt and 13 Watt output versions for a 250 kHz switching frequency. Input is 36 – 72 Volt and the output of the bias winding is 12 V, 0.2 A.

These parts can be ordered with leads coated in lead-free solder that make them compliant with RoHS standards.

Coilcraft can also custom engineer a transformer to meet your specific requirements.

Coilcraft **Designer's Kit C172** contains samples of all parts. To order, contact Coilcraft or visit <http://order.coilcraft.com> to purchase on-line.

Part number <sup>1</sup>	Power (W)	Inductance at 0 A <sup>2</sup> ±10% (μH)	Inductance at I <sub>pk</sub> <sup>3</sup> min (μH)	DCR max (Ohms)			Leakage inductance <sup>4</sup> max (μH)	Turns ratio		I <sub>pk</sub> <sup>3</sup> (A)	Secondary output
				pri	sec	bias		pri:sec	pri:bias		
POE60F-18_	6	75.0	67.5	0.195	0.005	0.195	8.0	1 : 0.07	1 : 0.36	1.3	1.8 V, 3.3 A
POE60F-25_	6	55.0	49.5	0.095	0.005	0.150	4.6	1 : 0.08	1 : 0.33	1.2	2.5 V, 2.4 A
POE60F-33_	6	65.0	58.5	0.138	0.007	0.180	3.9	1 : 0.11	1 : 0.36	1.2	3.3 V, 1.8 A
POE60F-50_	6	60.0	54.0	0.130	0.009	0.165	2.3	1 : 0.15	1 : 0.35	1.1	5.0 V, 1.2 A
POE60F-12_	6	55.0	49.5	0.095	0.017	0.150	0.7	1 : 0.35	1 : 0.35	1.1	12.0 V, 0.5 A
POE13F-18_	13	45.0	40.5	0.195	0.005	0.195	7.9	1 : 0.07	1 : 0.36	2.3	1.8 V, 7.2 A
POE13F-25_	13	35.0	31.5	0.095	0.005	0.150	4.2	1 : 0.08	1 : 0.33	2.2	2.5 V, 5.2 A
POE13F-33_	13	40.0	36.0	0.138	0.007	0.180	3.4	1 : 0.11	1 : 0.36	2.2	3.3 V, 3.9 A
POE13F-50_	13	40.0	36.0	0.130	0.009	0.165	1.9	1 : 0.15	1 : 0.35	2.1	5.0 V, 2.6 A
POE13F-12_	13	35.0	31.5	0.095	0.017	0.150	0.6	1 : 0.35	1 : 0.35	2.1	12.0 V, 1.1 A

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

**POE13F-12D**

**Packaging: D** = 13" machine-ready reel. EIA-481 embossed plastic tape (200 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.

When ordering a RoHS-compliant part, add an "L" before the packaging code: e.g. POE13F-12LD

2. Inductance is measured at 250 kHz, 0.3 Vrms.

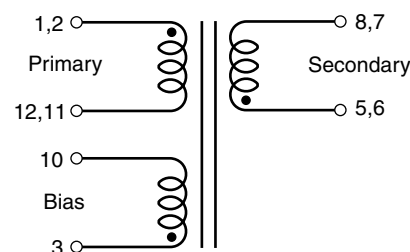
3. Peak primary current drawn at minimum input voltage.

4. Leakage inductance is for the primary winding with the secondary winding shorted.

5. Operating temperature range –40°C to +125°C.

6. Electrical specifications at 25°C.

## Schematic



# Coilcraft®

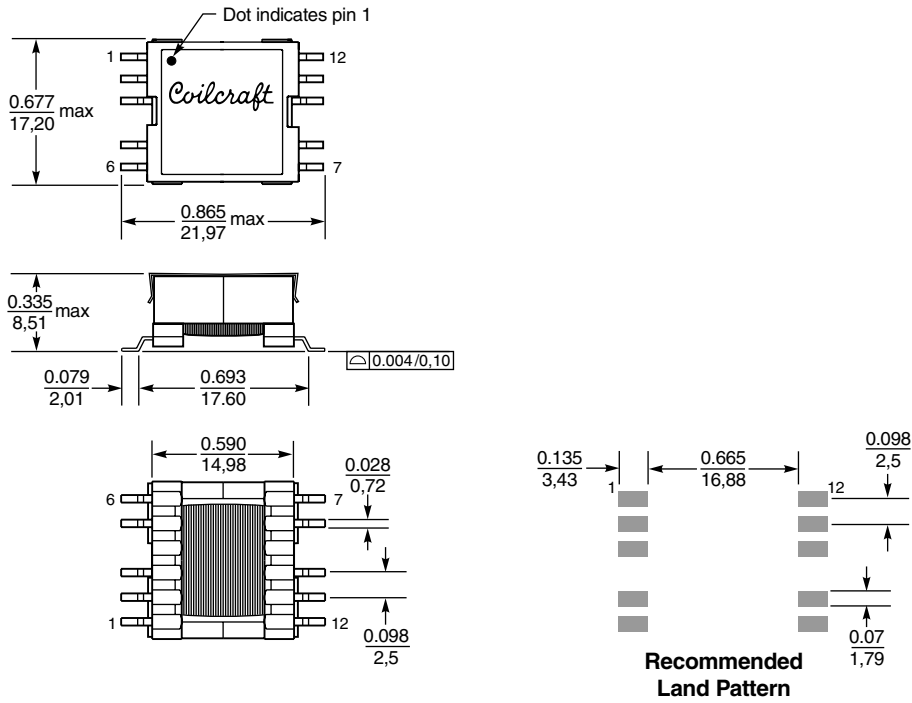
Specifications subject to change without notice. Document 381-1 Revised 09/29/04

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E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>

**NEW!**

# SMT PoE Transformers



**Tape and reel:** 200/13" reel 44 mm tape width  
For packaging data see Tape and Reel Specifications section.

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