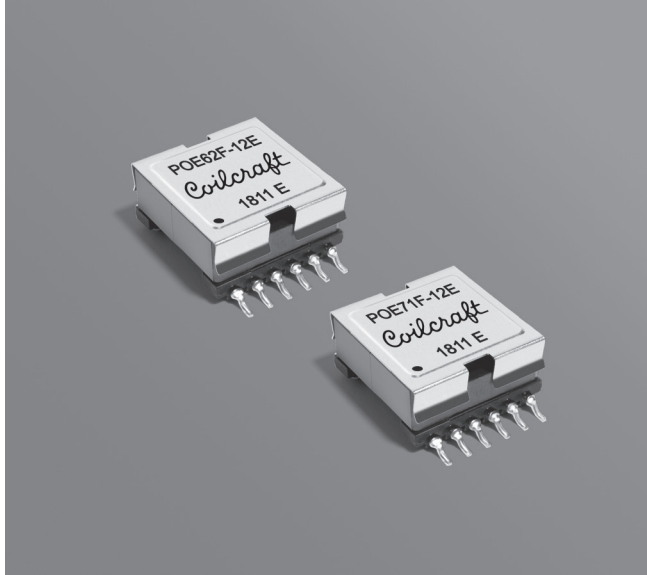




# High Power PoE Flyback Transformers



- Developed for Flyback DC/DC PoE PD power converters up to 71 W
- Designed to meet the upcoming IEEE802.3bt standard and operates with 36 – 57 V input
- 1500 Vrms, one minute isolation (hipot) between primary and auxiliary to secondary.
- Perfect solution for high power PoE applications including Smart Building and IoT

**Core material** Ferrite

**Environment** RoHS compliant, halogen free

**Terminations** Tin-silver-copper over tin over nickel over phos bronze.

**Weight** 12 g – 14 g

**Ambient temperature** –40°C to +125°C

**Maximum part temperature** +165°C (Ambient + temp rise)

**Storage temperature** Component: –40°C to +165°C

Tape and reel packaging: –40°C to +80°C

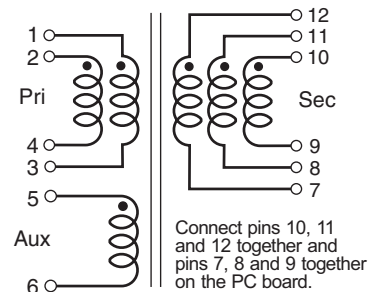
**Resistance to soldering heat** Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

Part number <sup>1</sup>	Power (W)	Inductance at 0 A <sup>2</sup> ±10% (µH)	DCR max (mOhms)			Leakage inductance <sup>3</sup> max (µH)	Turns ratio pri : sec : aux	Isat <sup>4</sup> (A)	Output <sup>5</sup>
			pri	sec	aux				
POE62F-33ED	62	22.2	34.9	2	130	0.50	1 : 0.143 : 0.50	5.4	3.3 V, 17.1 A
POE62F-50ED	62	22.2	34.9	2.8	130	0.38	1 : 0.214 : 0.50	5.4	5 V, 11.3 A
POE62F-12ED	62	17.8	18.9	9.2	108	0.17	1 : 0.5 : 0.50	5.7	12 V, 4.7 A
POE62F-24ED	62	17.8	18.9	36.3	108	0.12	1 : 1 : 0.50	5.7	24 V, 2.4 A
POE62F-48ED	62	17.8	18.9	140	108	0.11	1 : 2 : 0.50	5.7	48 V, 1.2 A
POE71F-33ED	71	18.9	34.9	2	130	0.50	1 : 0.143 : 0.50	6.3	3.3 V, 19.7 A
POE71F-50ED	71	18.9	34.9	2.8	130	0.38	1 : 0.214 : 0.50	6.3	5 V, 13 A
POE71F-12ED	71	15.5	18.9	9.2	108	0.17	1 : 0.5 : 0.50	6.6	12 V, 5.4 A
POE71F-24ED	71	15.5	18.9	36.3	108	0.12	1 : 1 : 0.50	6.6	24 V, 2.7 A
POE71F-48ED	71	15.5	18.9	140	108	0.11	1 : 2 : 0.50	6.6	48 V, 1.35 A

- Packaging:** D = 13" machine-ready reel. EIA-481 embossed plastic tape (175 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).
  - Inductance is for the primary, measured at 250 kHz, 0.5 Vrms, 0 Adc.
  - Leakage inductance is for the primary with the secondary and aux windings shorted.
  - DC current applied at the primary at 25°C that causes an inductance drop of <10% from its value without current.
  - Output is for the secondary. Output of the aux winding is 12 V, 30 mA.
  - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

## Schematics

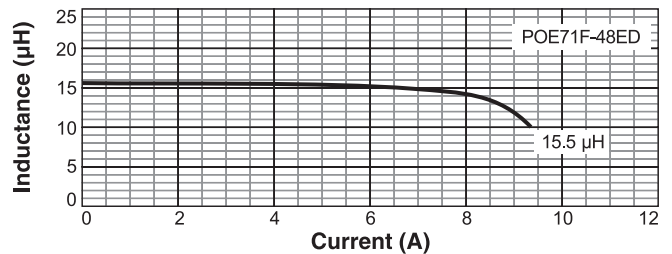
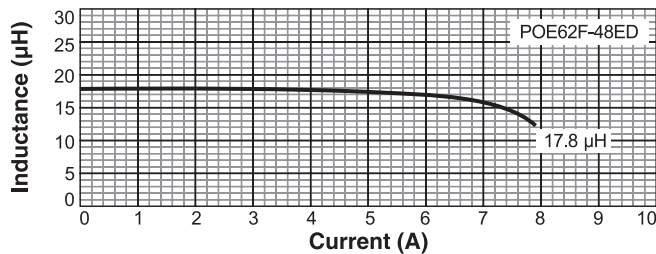
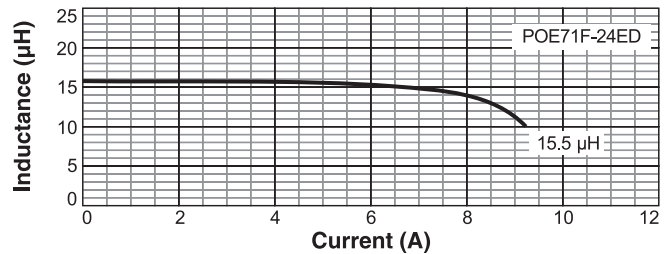
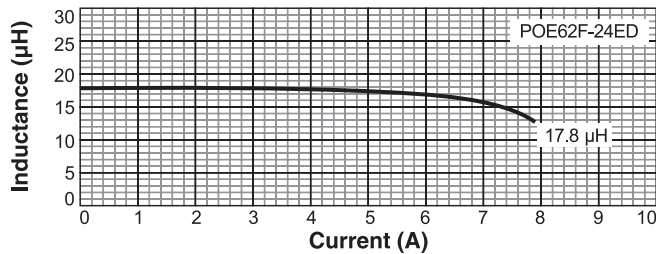
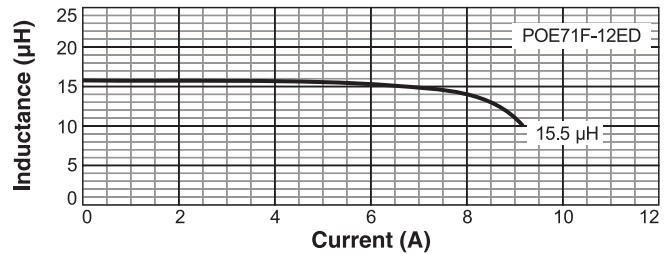
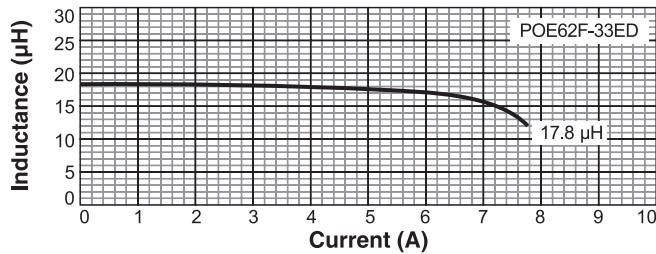
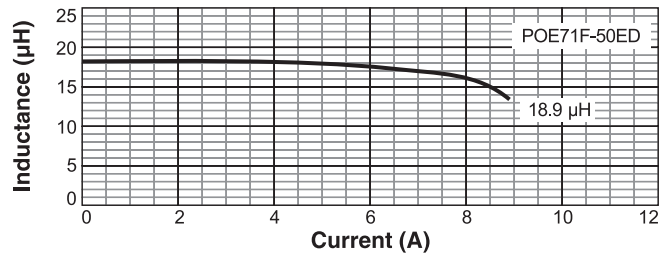
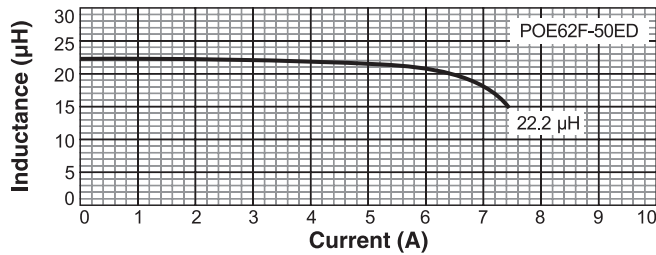
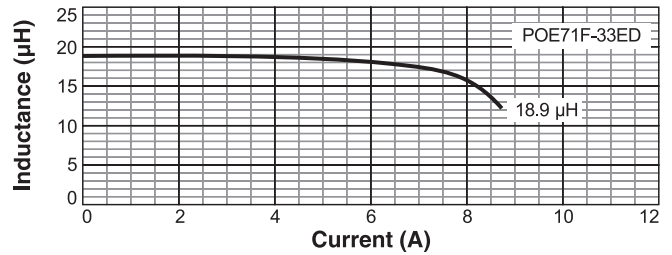
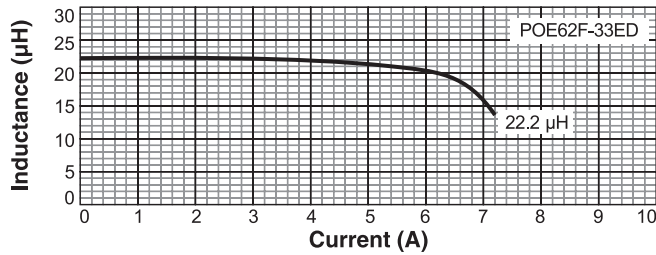


Connect pin 1 to 2 and pin 3 to 4 on the PC board.



# Flyback Transformers for PoE

## L vs Current

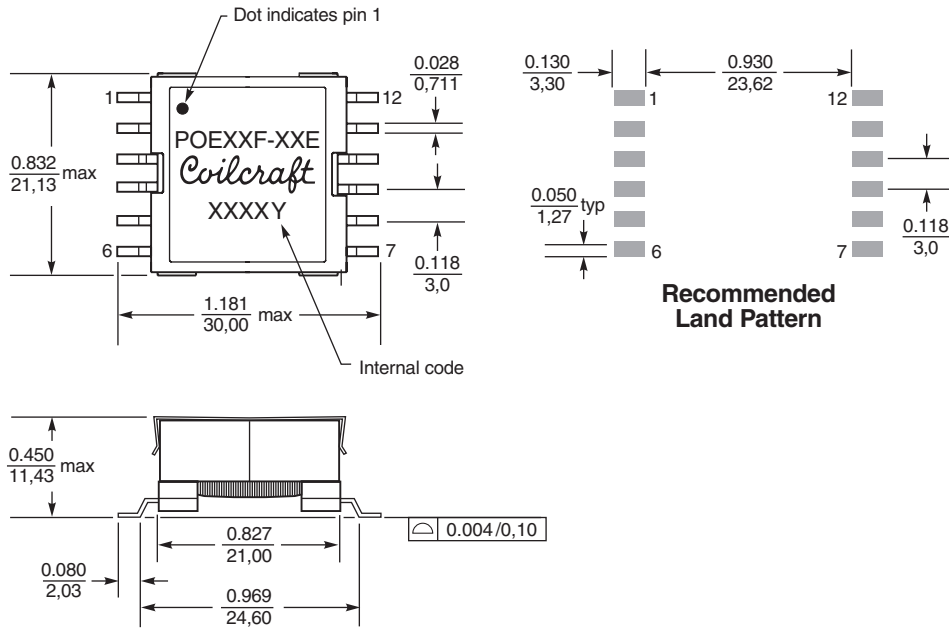


**US** +1-847-639-6400 sales@coilcraft.com  
**UK** +44-1236-730595 sales@coilcraft-europe.com  
**Taiwan** +886-2-2264 3646 sales@coilcraft.com.tw  
**China** +86-21-6218 8074 sales@coilcraft.com.cn  
**Singapore** + 65-6484 8412 sales@coilcraft.com.sg

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# Flyback Transformers for PoE



Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

**Packaging** 175 per 13" reel Plastic tape: 44 mm wide, 0.5 mm thick, 32 mm pocket spacing, 12 mm pocket depth



**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

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