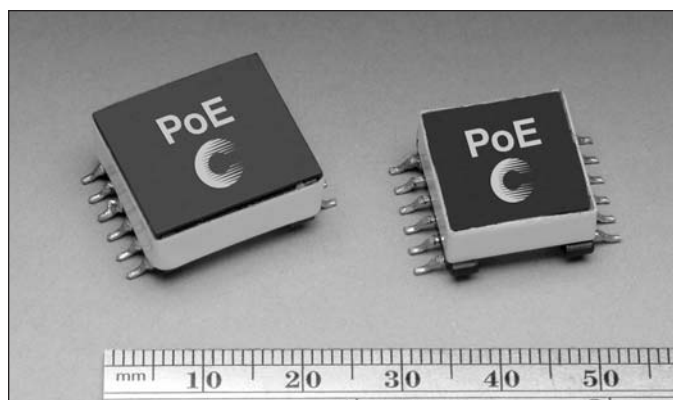


Power-over-Ethernet (PoE)/PD Configurable Transformer

RoHS
2002/95/EC



Description

- Versatile design allows multiple output variations
- Flyback topology, 250kHz switching frequency
- Input range from 29.5-60V
- 1500Vac isolation between primary and secondary
- Three power levels: 4, 7 and 13watts
- Low leakage inductance
- 11.0 Volt @ 0.10 amp feedback winding
- Ferrite core material

Applications

- For IEEE 802.3af-compliant Power-over-Ethernet applications
- UPS, VoIP Phone, wireless LAN access point, Bluetooth access point, network camera, building access systems
- Retail point-of-information systems
- Vending/gaming machines

Environmental Data

- Storage temperature range: -40°C to +125°C
- Operating ambient temperature range: -40°C to +85°C (range is application specific)
- Solder reflow temperature: +260°C max. for 10 seconds max.

Packaging

- Packaging Information: 4 and 7 Watts - 200 parts per 13" reel, 13 Watts - 140 parts per 13" diameter reel

Part Number	Watts	Inductance (μH)	Output	DCR/ PRI (Ω)	DCR/ SEC (Ω)	Leakage Inductance (μH) typ.	Pri Current Pk (Adc)	Turn Ratio		Schematic	Dimensions
								Schematic 1: Pins pri(1-3):fb(5-6):v1(12-7):v2(11-8):v3(10-9)	Schematic 2: Pins pri(1-3):fb(5-6):v1(12-10):v2(11-9)		
PoE4W3x3.3-R	4	200	(3)x3.3V@0.45A	0.500	0.07	2.75	0.65	1 : 0.52 : 0.16 : 0.16 : 0.16 ±1%		1	Size 1
PoE4W3x5.0-R	4	200	(3)x5.0V@0.30A	0.500	0.27	2.50	0.65	1 : 0.52 : 0.26 : 0.26 : 0.26 ±1%		1	Size 1
PoE4W2x12-R	4	200	(2)x12.0V@0.20A	0.500	0.740	1.40	0.65	1 : 0.52 : 0.60 : 0.60 ±1%		2	Size 1
PoE7W3x3.3-R	7	100	(3)x3.3V@0.75A	0.275	0.03	1.00	1.00	1 : 0.529 : 0.176 : 0.176 : 0.176 ±1%		1	Size 1
PoE7W3x5.0-R	7	100	(3)x5.0V@0.50A	0.275	0.095	1.00	1.00	1 : 0.529 : 0.265 : 0.265 : 0.265 ±1%		1	Size 1
PoE7W2x12-R	7	100	(2)x12.0V@0.30A	0.275	0.250	1.00	1.00	1 : 0.529 : 0.588 : 0.588 ±1%		2	Size 1
PoE13W3x3.3-R	13	100	(3)x3.3V@1.35A	0.250	0.032	1.50	1.60	1 : 0.529 : 0.176 : 0.176 : 0.176 ±3%		1	Size 2
PoE13W3x5.0-R	13	100	(3)x5.0V@0.90A	0.250	0.075	1.20	1.60	1 : 0.529 : 0.265 : 0.265 : 0.265 ±3%		1	Size 2
PoE13W2x12-R	13	100	(2)x12.0V@0.60A	0.250	0.280	1.00	1.70	1 : 0.529 : 0.647 : 0.647 ±3%		2	Size 2
Part Number	Watts	Inductance (μH)	Output	DCR/ PRI (Ω)	DCR/ SEC (Ω) V1/V2/V3	Leakage Inductance (μH) typ.	Pri Current Pk (Adc)	Turn Ratio		Schematic	Dimensions
								Schematic 2: Pins pri(1-3):fb(5-6):v1(12-10):v2(11-9)	Schematic 3: Pins pri(1-3):fb(5-6):v1(12-11):v2(10-9):v3(8-7)		
PoE13W3VERS-R	13	100	V1:7.0V@1.1A, V2:(1)x3.3V@1.1A, V3:1.8V@1.1A	0.250	0.085 0.042 0.025	1.00	1.70	1 : 0.529 : 0.350 : 0.176 : 0.088 ±3%		3	Size 2
PoE13W2VERS-R	13	100	V1:5.0V@1.6A, V2:3.3V@1.6A	0.250	0.038/ 0.027/na	1.20	1.70	1 : 0.529 : 0.265 : 0.176 ±3%		2	Size 2

1) Test Parameters: 100kHz, 0.100 V_{rms}, 0.0Adc

2) DCR limits maximum @ 20°C

3) Leakage Inductance 200kHz, 0.01V_{rms}, 0.0Adc

4) Feedback DCR 1.0Ω maximum @20°C

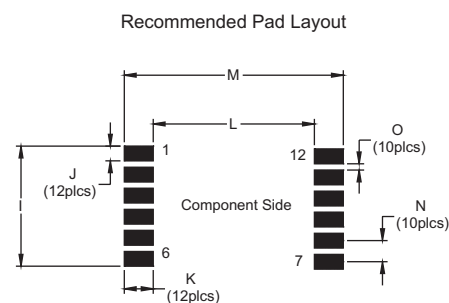
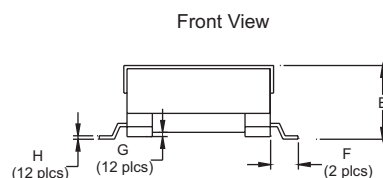
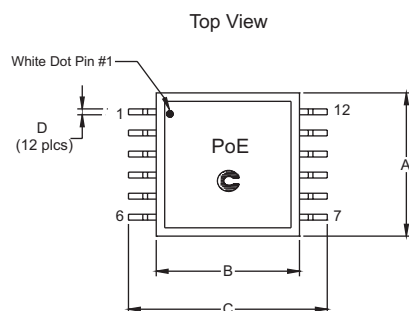
Dimensions (mm)

	A max.	B ref.	C max.	D ref.	E max.	F ref.	G ref.	H ref.	I ref.	J mm	K mm	L ref.	M max.	N	O
Size 1	17.1	16.0	22.3	0.7	8.4	3.0	0.1	0.4	14.49	1.79	3.43	16.88	23.74	2.54	0.75
Size 2	18.0	18.0	24.6	0.7	10.0	3.3	0.1	0.4	14.25	1.75	3.43	19.14	26.0	2.5	0.75

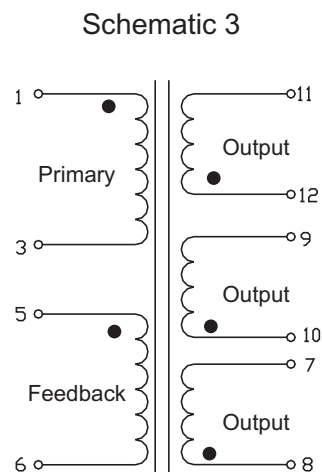
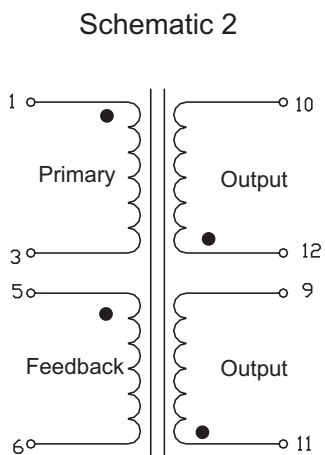
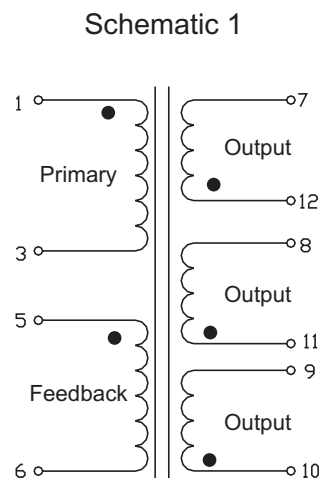
1) Tolerances A - H are $\pm 0.25\text{mm}$ unless specified otherwise.

2) Tolerances I - O are $\pm 0.10\text{mm}$ unless specified otherwise.

3) All soldering surfaces are coplanar to within $\pm 0.102\text{mm}$.

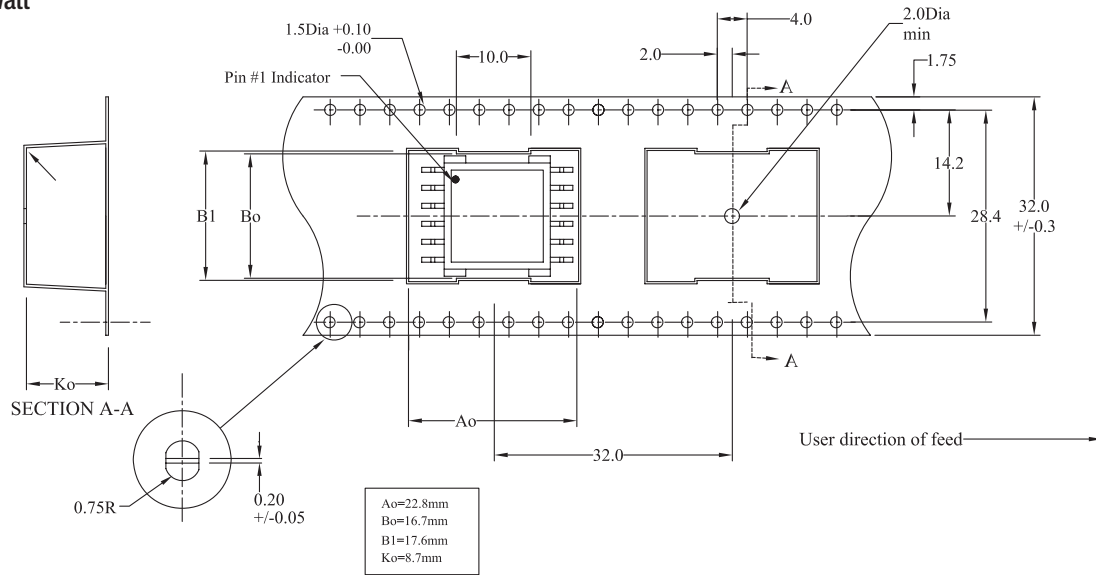


Schematics

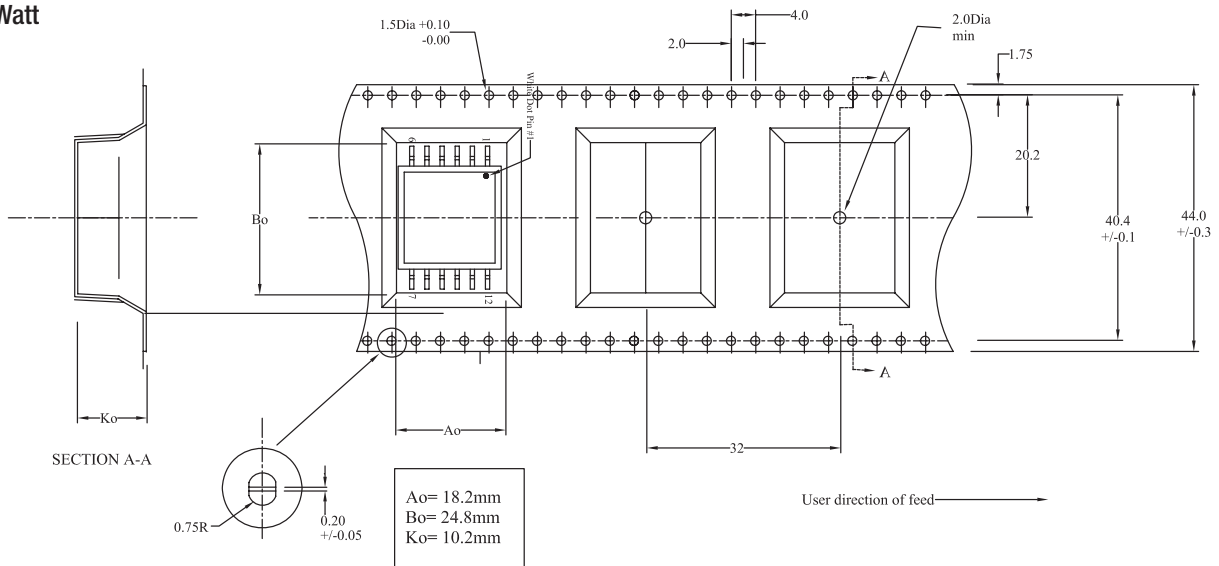


Packaging Information

PoE 4 and 7 Watt



PoE 13 Watt



North America

Cooper Bussmann
1225 Broken Sound Parkway NW
Suite F
Boca Raton, FL 33487-3533
Tel: 1-561-998-4100
Fax: 1-561-241-6640
Toll Free: 1-888-414-2645

Cooper Bussmann
P.O. Box 14460
St. Louis, MO 63178-4460
Tel: 1-636-394-2877
Fax: 1-636-527-1607

Europe

Cooper Bussmann
Cooper (UK) Limited
Burton-on-the-Wolds
Leicestershire • LE12 5TH UK
Tel: +44 (0) 1509 882 737
Fax: +44 (0) 1509 882 786

Cooper Bussmann
Avda. Santa Eulalia, 290
08223
Terrassa, (Barcelona), Spain
Tel: +34 937 362 812
+34 937 362 813
Fax: +34 937 362 719

Asia Pacific

Cooper Bussmann
1 Jalan Kilang Timor
#06-01 Pacific Tech Centre
Singapore 159303
Tel: +65 278 6151
Fax: +65 270 4160

This bulletin is intended to present product design solutions and technical information that will help the end user with design applications. Cooper Bussmann reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Cooper Bussmann also reserves the right to change or update, without notice, any technical information contained in this bulletin. Once a product has been selected, it should be tested by the user in all possible applications.

Life Support Policy: Cooper Bussmann does not authorize the use of any of its products for use in life support devices or systems without the express written approval of an officer of the Company. Life support systems are devices which support or sustain life, and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Cooper Bussmann:

[POE13W2VERS-R](#) [POE13W2X12-R](#) [POE13W3VERS-R](#) [POE13W3X3.3-R](#) [POE13W3X5.0-R](#) [POE4W2X12-R](#)
[POE4W3X3.3-R](#) [POE4W3X5.0-R](#) [POE7W2X12-R](#) [POE7W3X3.3-R](#) [POE7W3X5.0-R](#)