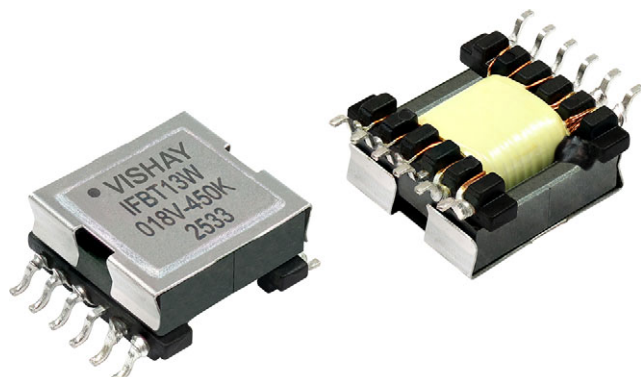


Surface-Mount PoE Flyback Transformers - 6 W, 13 W, 30 W



FEATURES

- Size: 22.0 mm x 17.5 mm x 9.1 mm and larger
- SMD flyback transformer design for power over ethernet (PoE) applications
- Power rating options for 6 W, 13 W, and 30 W
- Output voltage options from 1.8 V to 24 V
- Optimized operation at 26 V to 72 V input and 250 kHz frequency
- Operating voltage rating 250 V_{AC}
- Operating temperature range: -40 °C to 125 °C
- Customized turns ratio available
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT

LINKS TO ADDITIONAL RESOURCES



MATERIAL SPECIFICATIONS

- Terminals: copper base with Ni/Sn electroplating
- Core: magnetic iron powder or ferrite
- Weight: 5.4 g (IFBT0709ZI), 12.5 g (IFBT0912AB)

APPLICATIONS

- Flyback transformers for 6 W and 30 W PoE applications
- LED lighting drivers
- General transformer

STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	IND. ± 10 % ⁽¹⁾ (μH)	L _k IND. ⁽²⁾ (μH)	DCR MAX. (Ω)			TURNS RATIO ⁽³⁾		I _{pk} MAX. ⁽⁴⁾ (A)	OUTPUT ⁽⁵⁾ (V / A)
			PRI	SEC	AUX	PRI : SEC	PRI : AUX		
6 W POWER RATING									
IFBT0709ZIFS061R80	75.0	8.40	0.195	0.005	0.195	1 : 0.07	1 : 0.36	1.3	1.8 / 3.3
IFBT0709ZIFS062R50	55.0	4.80	0.112	0.005	0.150	1 : 0.08	1 : 0.33	1.2	2.5 / 2.4
IFBT0709ZIFS063R30	65.0	4.00	0.138	0.007	0.180	1 : 0.11	1 : 0.36	1.2	3.3 / 1.8
IFBT0709ZIFS065R00	60.0	2.45	0.130	0.009	0.165	1 : 0.15	1 : 0.35	1.1	5.0 / 1.2
IFBT0709ZIFS061200	50.0	0.86	0.095	0.017	0.150	1 : 0.35	1 : 0.35	1.1	12 / 0.5
13 W POWER RATING									
IFBT0709ZIFS131R80	45.0	8.00	0.195	0.005	0.195	1 : 0.07	1 : 0.36	2.3	1.8 / 7.2
IFBT0709ZIFS132R50	35.0	4.40	0.112	0.005	0.150	1 : 0.08	1 : 0.33	2.2	2.5 / 5.2
IFBT0709ZIFS133R30	40.0	3.50	0.138	0.007	0.180	1 : 0.11	1 : 0.36	2.2	3.3 / 3.9
IFBT0709ZIFS135R00	40.0	2.00	0.130	0.009	0.165	1 : 0.15	1 : 0.35	2.1	5.0 / 2.6
IFBT0709ZIFS131200	35.0	0.75	0.095	0.017	0.150	1 : 0.35	1 : 0.35	2.0	12 / 1.1
IFBT0709ZIFS132000	37.0	0.75	0.102	0.032	0.150	1 : 0.57	1 : 0.38	2.0	19.5 / 0.67
IFBT0709ZIFS132400	37.0	0.65	0.102	0.058	0.150	1 : 0.57	1 : 0.33	2.0	24 / 0.54

**STANDARD ELECTRICAL SPECIFICATIONS**

PART NUMBER	IND. ± 10 % ⁽¹⁾ (μH)	L _k IND. ⁽²⁾ (μH)	DCR MAX. (Ω)			TURNS RATIO ⁽³⁾		I _{pk} MAX. ⁽⁴⁾ (A)	OUTPUT ⁽⁵⁾ (V / A)
			PRI	SEC	AUX	PRI : SEC	PRI : AUX		
30 W POWER RATING									
IFBT0912ABFS303R30	42.0	3.15	0.072	0.003	0.235	1 : 0.095	1 : 0.33	2.6	3.3 / 9.0
IFBT0912ABFS305R00	42.0	1.70	0.071	0.006	0.240	1 : 0.14	1 : 0.33	2.6	5.0 / 6.0
IFBT0912ABFS301200	42.0	0.75	0.063	0.017	0.205	1 : 0.33	1 : 0.33	2.6	12 / 2.5
IFBT0912ABFS302000	42.0	0.60	0.062	0.038	0.205	1 : 0.56	1 : 0.33	2.6	19.5 / 1.5
IFBT0912ABFS302400	42.0	0.60	0.062	0.057	0.205	1 : 0.67	1 : 0.33	2.6	24 / 1.25

Notes

- All test data is referenced to 25 °C ambient
 - Storage condition: -20 °C to +60 °C and < 60 % RH (on board); and +5 °C to +40 °C and < 60 % RH (in component packaging)
 - Rated operating voltage = 250 V_{AC} (50 Hz / 60 Hz)
 - Isolation voltage: 1500 V_{AC} / 60 s (PRI to SEC)
 - Applying signals within the audio-frequency range may result in audible noise due to the magnetostrictive properties of the core material
 - Moisture sensitivity level, MSL = 1
- (1) Inductance measured with LCR meter 4584A or equivalent; test condition 250 kHz, 0.3 V_{RMS}
- (2) Leakage inductance (typical) measured across primary winding with the secondary windings shorted
- (3) Turns ratios are with the primary and secondary windings connected in parallel
- (4) Maximum recommended operating current
- (5) Output is connected in parallel; AUX winding output is 12 V, 20 mA

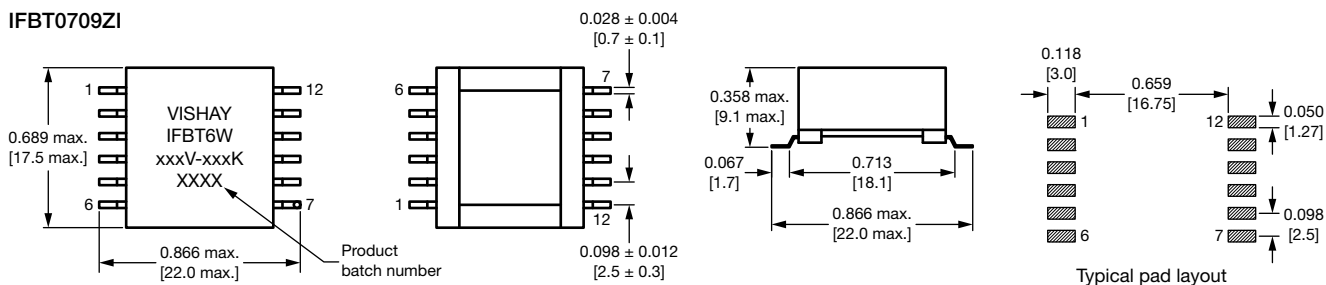
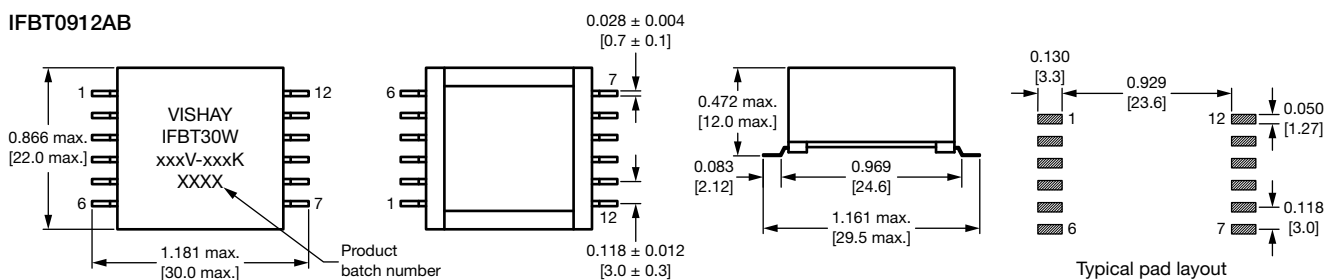
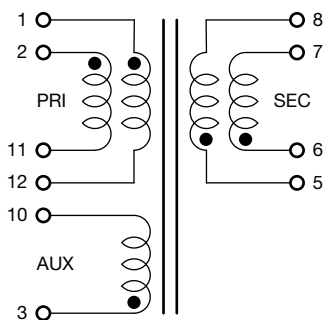
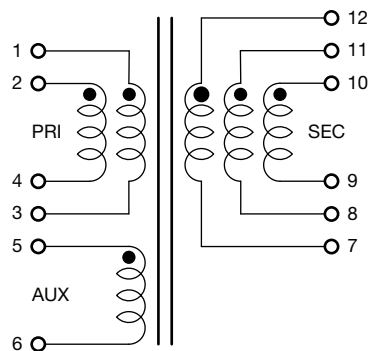
GLOBAL PART NUMBER

I	F	B	T	0	7	0	9	Z	I	F	S	0	6	1	R	8	0
PRODUCT FAMILY				FOOTPRINT				HEIGHT		PACKAGING		POWER RATING		OUTPUT VOLTAGE			SERIES
				0709 = 0.7" x 0.9"				ZI = 9 mm		FS =		06 = 6 W		1R8 = 1.8 V			
				0912 = 0.9" x 1.2"				AB = 12 mm		tape and reel		13 = 13 W		2R5 = 2.5 V			
												30 = 30 W		3R3 = 3.3 V			
														5R0 = 5.0 V			
														120 = 12 V			
														200 = 19.5 V			
														240 = 24 V			

Note

- For additional packaging details see ["Packaging Methods"](#)

DIMENSIONS in inches [millimeters]

IFBT0709ZI

IFBT0912AB

SCHEMATIC
IFBT0709ZI

IFBT0912AB


The primary windings and the secondary windings to be connected in parallel on the PC board.



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