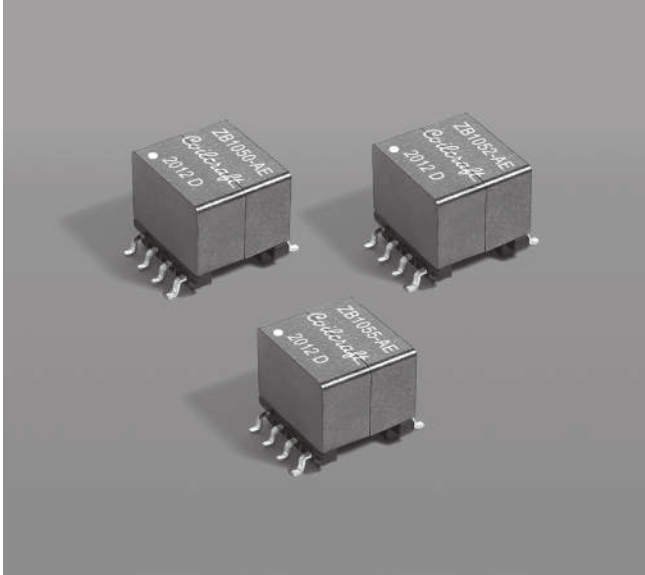


Flyback Transformers ZB105X-AE



- Six output versions optimized for the LM25183 and LM25183-Q1 primary-side regulated (PSR), no-opto, flyback converters from Texas Instruments
- Designed to operate up to 300 kHz with 4 – 42 V input
- 1500 Vrms, one minute isolation (hipot) between primary and secondary
- AEC-Q200 Grade 3 (–40°C to +85°C)

Core material Ferrite

Terminations RoHS tin-silver-copper over tin over nickel over phos bronze. Other terminations available at additional cost.

Weight 2.73 – 2.80 g

Ambient temperature –40°C to +85°C

Max Part Temperature +125°C (ambient + temperature rise)

Storage temperature Component: –40°C to +125°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)

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

Part number ¹	L at 0 A ² ±10% (µH)	L min at 3 A ³ (µH)	Leakage inductance max (µH) ⁴	DCR max (Ohms)		Turns ratio pri : sec	Isolation ⁵ (Vrms)	Power (W)	Output
				Pri	Sec				
ZB1050-AE	12.5	11.25	0.40	0.050	0.021	4 : 1	1500	8.25	3.3 V, 2.5 A
ZB1051-AE	14.0	12.60	0.30	0.045	0.020	3 : 1	1500	10.0	5 V, 2 A
ZB1052-AE	14.0	12.60	0.30	0.050	0.052	2 : 1	1500	9.6	8 V, 1.2 A
ZB1053-AE	12.5	11.25	0.15	0.050	0.054	1 : 1	1500	7.5	15 V, 0.5 A
ZB1054-AE	12.5	11.25	0.13	0.052	0.200	1 : 2	1500	8.4	24 V, 0.35 A
ZB1055-AE	14.0	12.60	0.18	0.050	1.150	1 : 3	1500	9.6	48 V, 0.2 A

1. **Packaging:** D = 13" machine-ready reel. EIA-481 embossed plastic tape (350 parts per reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

2. Inductance is for the primary, measured at 300 kHz, 0.1 Vrms, 0 Adc.

3. Minimum inductance is for the primary, measured at 300 kHz, 0.1 Vrms, 3 Adc.

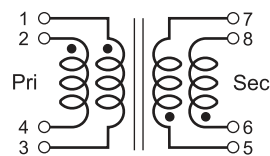
4. Leakage Inductance is for the primary, measured with secondary windings shorted together.

5. 1500 Vrms, one minute isolation (hipot) from primary to secondary.

6. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

Schematic

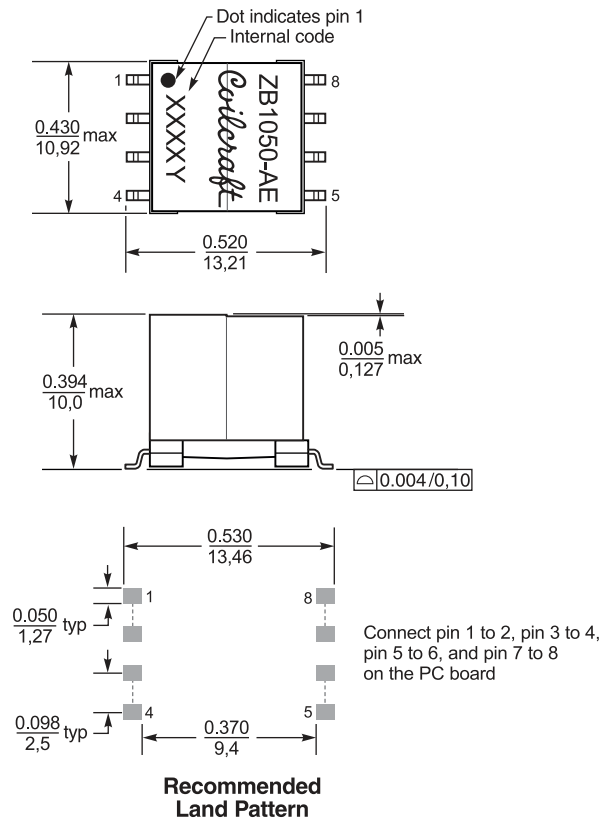


Connect pin 1 to 2, pin 3 to 4, pin 5 to 6, and pin 7 to 8 on the PC board



Flyback Transformers – ZB105x

Dimensions



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

Packaging 350/13" reel Plastic tape: 24 mm wide, 0.5 mm thick, 16 mm pocket spacing, 10.35 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

Document 1632-2 Revised 11/16/21

© Coilcraft Inc. 2021

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.