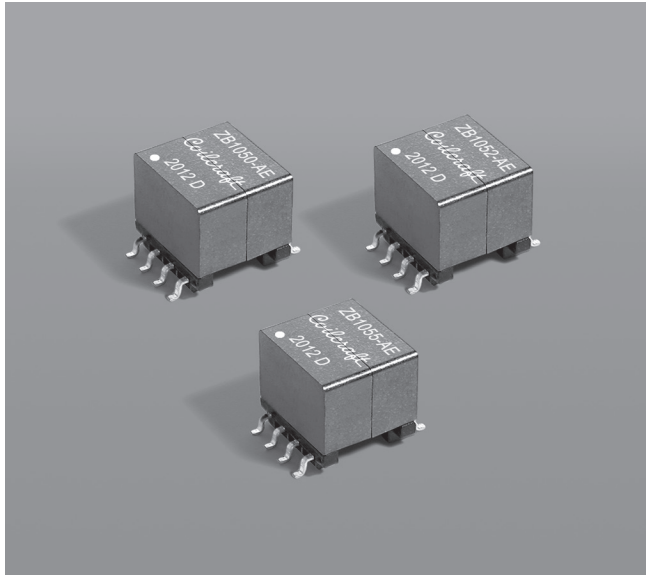


Flyback Transformers ZB105X-AE



- 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.

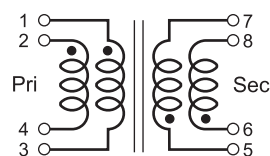
4. Leakage Inductance is for the primary, measured with secondary windings shorted together.

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

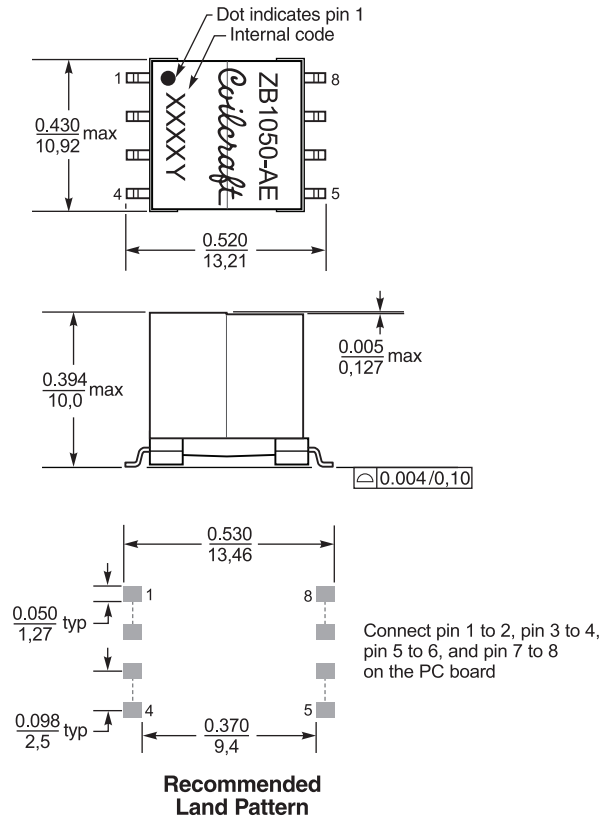


Connect pin 1 to 2, pin 3 to 4, pin 5 to 6, and pin 7 to 8 on the PC board



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



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Document 1632-2 Revised 11/16/21

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