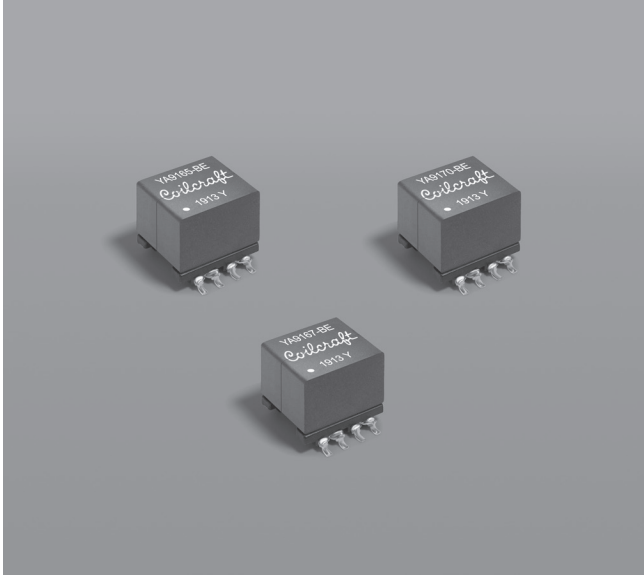


No-Opto Flyback Transformers



- Discontinuous conduction mode Flyback transformers
- Optimized for 125 – 150 kHz with 8 – 28 V or 18 – 60 V input
- 1500 Vrms, one minute isolation between primary and secondary

Core material Ferrite

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

Weight 4.27 – 4.60 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)

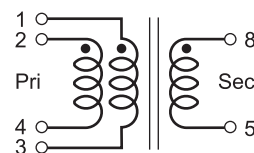
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

Part number ¹	Inductance at 0 A ² ±10% (µH)	Isat ³ (A)	DCR max (Ohms)		Leakage inductance max (µH) ⁴	Turns ratio pri : sec	Isolation ⁵ (Vrms)	Power (W)	Output
			pri	sec					
8 – 28 V input									
YA9165-BED	4.0	13.0	0.0156	0.0144	0.15	1 : 0.70	1500	12	5 V, 2.40 A
YA9166-BED	4.0	13.0	0.0156	0.0598	0.12	1 : 1.60	1500	12	12 V, 1 A
YA9167-BED	4.0	13.0	0.0156	0.1900	0.12	1 : 3.14	1500	12	24 V, 0.50 A
18 – 60 V input									
YA9168-BED	20.0	4.7	0.0360	0.0120	0.40	1 : 0.31	1500	12	5 V, 2.40 A
YA9169-BED	20.0	4.7	0.0380	0.0540	0.28	1 : 0.71	1500	12	12 V, 1 A
YA9170-BED	20.0	4.7	0.0360	0.1950	0.28	1 : 1.39	1500	12	24 V, 0.50 A

- Packaging:** D = 13" machine-ready reel. EIA-481 embossed plastic tape. 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 150 kHz, 0.1 Vrms, 0 Adc.
 - DC current that causes the primary inductance drop 30% from its value without current. [Click for temperature derating information.](#)
 - Leakage Inductance is for the primary, measured with secondary windings shorted together.
 - 1500 Vrms, one minute isolation (hipot) between windings.
 - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

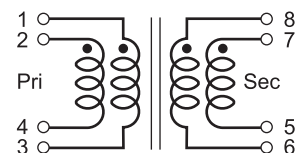
Schematics

YA9165, YA9166,
YA9167, YA9170



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

YA9168, YA9169

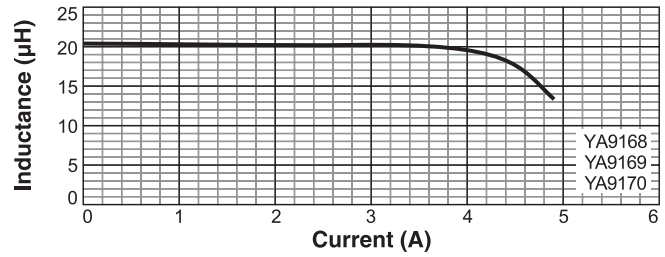
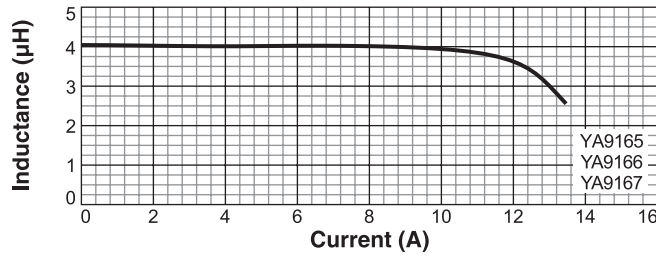


*Connect pin 1 to 2, 3 to 4, 5 to 6, and pin 7 to 8 on the PC board

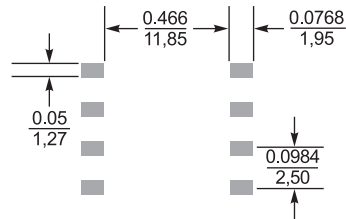
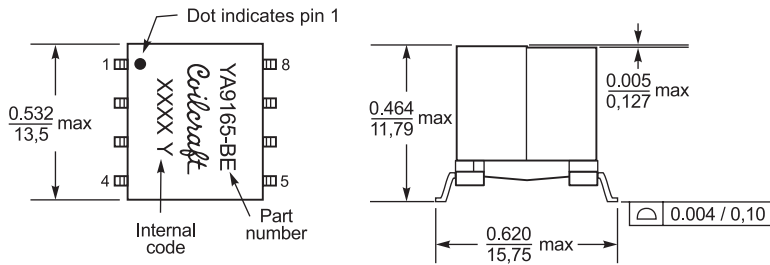


No-opto Flyback Transformers

L vs Current



Dimensions



Recommended Land Pattern

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

Packaging 200/13" reel Plastic tape: 32 mm wide, 0.50 mm thick, 24 mm pocket spacing, 12 mm pocket depth



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