

SWITCHING TRANSFORMERS

YCEFD SERIES

FEATURES:

- Horizontal installation
- Multi out-put applied in denseness installation

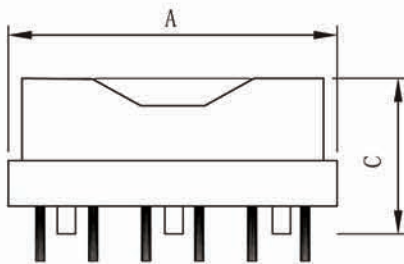
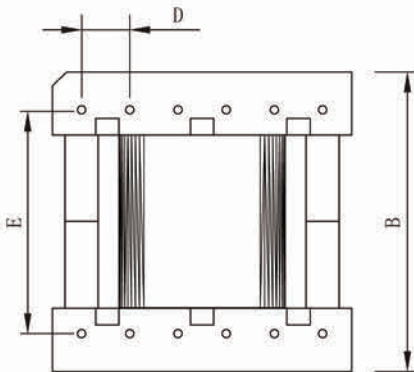
COMMON APPLICATIONS:

- Drive transformers
- Main transformers
- Smoothing chokes
- General purpose use
- Switching power supplies
- AC-DC, DC-DC converters

OPTIONS:

- Bulk packaging is standard
- Custom design available

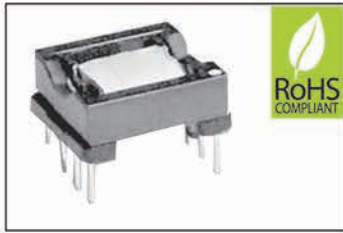
PHYSICAL CHARACTERISTICS



ELECTRICAL CHARACTERISTICS

Part No.	Type	No. of Terminal pins	Dimensions (mm)						Max. output (VA)
			Max	Max	Max	±0.3	±0.5	±0.1	
			A	B	C	D	E	F	
YCEFD 15-A	H	8	17	18	9.5	3.7	13.7	0.6	5
YCEFD 15-B	H	8	17	18	9.5	3.75	13.75	0.6	5
YCEFD 15-C	H	8	17	18	9.5	3.8	13.7	0.6	5
YCEFD 20-A	H	8	22	23	11.0	5.0	17.5	0.6	18
YCEFD 20-B	H	9	22	23	11.0	5.0	17.5	0.6	18
YCEFD 20-C	H	10	22	26	15.0	3.8	23.8	0.6	18
YCEFD 25-A	H	10	27	28	13.0	5.0	22.45	0.8	45
YCEFD 25-B	H	10	27	28	15.0	5.0	22.5	0.8	45
YCEFD 30-A	H	12	32	33	14.0	5.0	27.4	0.8	70
YCEFD 30-B	H	12	32	36	18.0	5.0	30.0	0.8	70
YCEFD 30-C	H	12	32	37	14.0	5.0	32.0	0.8	70

Note: The output power is only for forward model and the frequency at 100kHz



Magnetics for 300 W PFC Power Supply

YCEFD15/3858-AL Gate Drive Transformer

- Specified by Texas Instruments in Reference Design SLUU341 for 300 Watt Isolated PFC Power Supply
- HA3950-AL, Flyback transformer for 5 W bias supply operates with an input voltage range of 100 – 450 V.
- HA3858-AL, Gate drive transformer

Core material Ferrite

Terminations RoHS compliant tin-silver over tin over copper. Other terminations available at additional cost.

Weight HA3950-AL: 13.5 g; HA3858-AL: 4.1 g

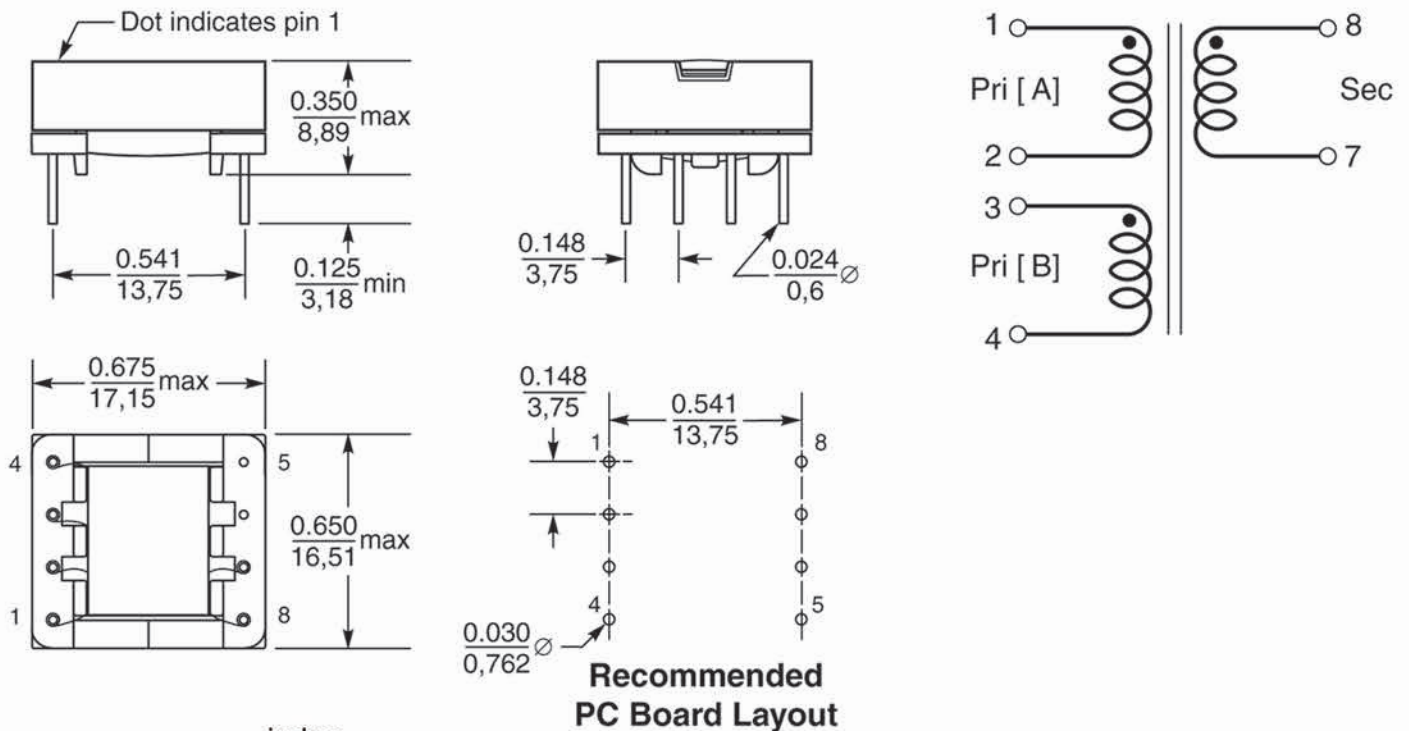
Ambient temperature -40°C to +85°C

Storage temperature Component: -40°C to +85°C.
Tray packaging: -40°C to +80°C

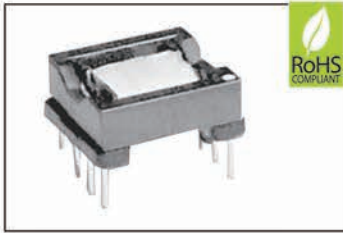
Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Part number	Turns ratio	Primary inductance ¹ ±25% (μH)	Leakage inductance ² max (μH)	DCR max (Ohms)	Volt-time product (V-μsec)	SRF typ ³ (MHz)	Capacitance max (pF)
YCEFD15/3838-AL	1 : 1 : 1	460	1.87 (1-2) 2.06 (3-4)	0.380 (Pri [A]) 0.472 ((Pri [B]) 0.424 (sec)	150	1.15	8.48 (pri) 28.66 (sec)

- Inductance is for each winding, measured at 200 kHz, 0.4 Vrms, 0 Adc.
- Leakage inductance is for each primary, measured at 200 kHz, 0.4 Vrms with secondary pins shorted.
- SRF measured with coils connected in series using an Agilent/HP 4192 or equivalent.
- Operating temperature range -40°C to +85°C.
- Isolation: 3000 Vrms, one minute primary to secondary; 500 Vrms, one minute windings to core
- Electrical specifications at 25°C.



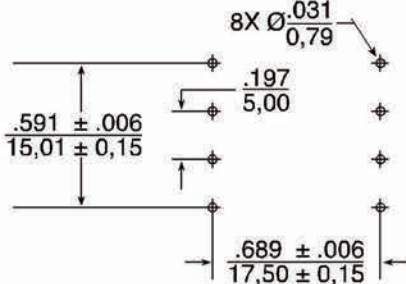
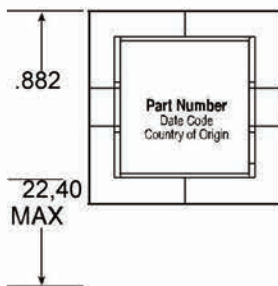
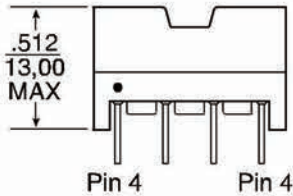
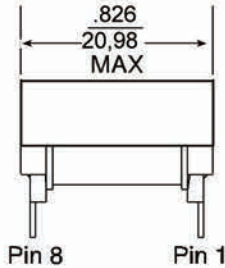
Dimensions are in $\frac{\text{inches}}{\text{mm}}$



High Frequency Wire Wound Transformers

YCEFD20Platforms - THT

- **Power Range:** Up to 120W
- **Height:** 13.0mm Max
- **Footprint:** 22.4mm x 21.0mm Max
- **Topology:** Forward and Flyback



Electrical Specifications @ 25°C — Operating Temperature -40°C to 130°C⁵

Model	Parameter	Value	Topology
YCEFD20-1	Pri. Inductance	(2-3)	222µH ±30%
	Lk. Inductance	(2-3) with (5,6,7,8) shorted	2µH MAX
	DCR	(2-3)	45mΩ MAX
		(5-6)	15mΩ MAX
		(7-8)	24mΩ MAX
		(1-4)	80mΩ MAX
Hi-Pot	Pri-Sec	1500 Vdc	
K1 Factor		23	
YCEFD20-2	Pri. Inductance	(1,2-3,4)	110µH ±30%
	Lk. Inductance	(1,2-3,4) with (5,6,7,8) shorted	2µH MAX
	DCR	(2-3)	82mΩ MAX
		(1-4)	102mΩ MAX
		(7,8-5,6)	7.5mΩ MAX
Hi-Pot	Pri-Sec	1500 Vrms	
K1 Factor		23	
YCEFD20-3	Pri. Inductance	(7,8-5,6)	10.6µH ±7%
	Lk. Inductance	(7,8-5,6) with (2-3) shorted	1.5µH MAX
	DCR	(7,8-5,6)	13mΩ MAX
		(2-3)	480mΩ MAX
Hi-Pot	Pri-Sec	1500 Vrms	
K1 Factor		263	
YCEFD20-4	Pri. Inductance	(1,2-3,4)	160.2µH ±33%
	Lk. Inductance	(1,2-3,4) with (5,6,7,8) shorted	1.5µH MAX
	DCR	(1-3)	60mΩ MAX
		(2-4)	72mΩ MAX
		(8,7-6,5)	2.5mΩ MAX
Hi-Pot	Pri-Sec	1800 Vdc	
K1 Factor		26.9	
YCEFD20-5	Pri. Inductance	(1-2)	40µH ±10%
	Lk. Inductance	(1-2) with (5,6,7,8) shorted	0.33µH MAX
	DCR	(1-2)	18mΩ MAX
		(3-4)	61mΩ MAX
		(5-6)	24mΩ MAX
		(7-8)	62mΩ MAX
Hi-Pot	Pri-Sec	1500 Vrms	
K1 Factor		32.3	

