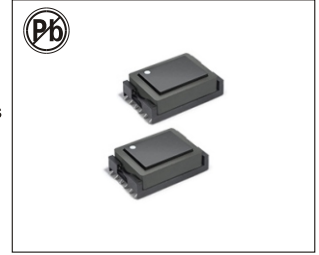


# CCFL TRANSFORMERS

## FEATURES:

The STEFD15 Series of transformers is designed for use in cold cathode fluorescent lamp (CCFL) power supplies at operating frequencies up to 100 kHz. With output power from 3.5 to 6.0 Watts, these transformers are ideal for LCD backlight applications. They are available in two different gull wing, surface mount packages and one inboard configuration for height restricted designs.

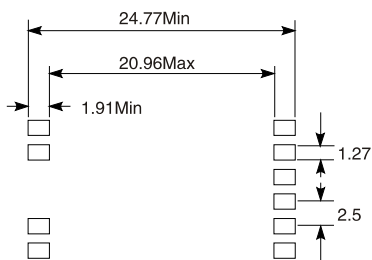
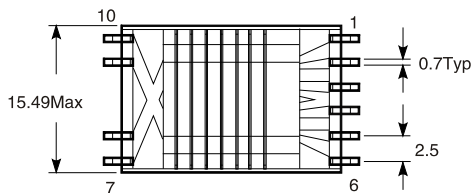
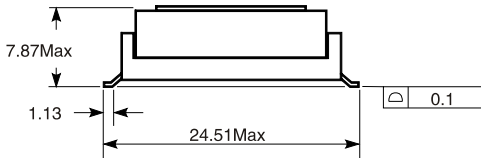


## ELECTRICAL CHARACTERISTICS:

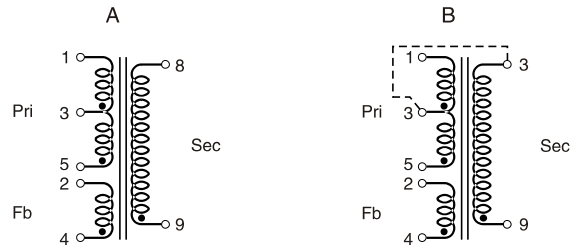
Part No. STEF15-	Turns ratio		Output power (Watts)	Inductance 1-5 (uH) Ref	Sec current (mA)Max	Continuous voltage		Instantaneous voltage at startup		DCR (Ω)Max			Schematic
	Pri:Sec	Pri:Fb				Pri	Sec	Pri	Sec	Pri	Sec	Fb	
020	1:67	1:0.19	6.0	43	5.0	22	1600	25.0	2000	0.22	285	0.1	B
021	1:67	1:0.19	6.0	43	5.0	23	1600	29.0	2000	0.22	285	0.1	A
022	1:100	1:0.25	6.0	19	5.0	16	1600	20.0	2000	0.19	285	0.1	A
023	1:50	1:0.14	6.0	44	7.0	32	1600	40.0	2000	0.22	165	0.1	A
024	1:125	1:0.38	6.0	20	7.0	12	1600	16.0	2000	0.16	330	0.1	A
025	1:67	1:0.19	6.0	48	11.0	23	1600	29.0	2000	0.16	176	0.1	B
026	1:67	1:0.19	6.0	50	11.0	23	1600	29.0	2000	0.16	176	0.1	A
027	1:86	1:0.21	6.0	31	11.0	18	1600	23.0	2000	0.132	176	0.1	A
028	1:100	1:0.25	6.0	22	11.0	16	1600	20.0	2000	0.132	176	0.1	A
029	1:93	1:0.25	4.5	40	11.0	17	1600	21.0	2000	0.175	675	0.05	A

## PHYSICAL CHARACTERISTICS: WINDING:

Dimension: mm



Schematic

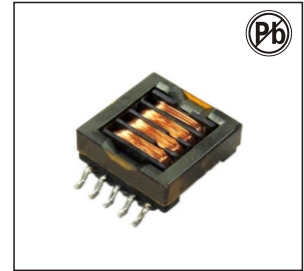


Notes

1. Ambient temperature range: -40°C to +85°C
2. Storage temperature range: Component: -40°C to +85°C
3. Tape and reel packaging: -40°C to +80°C
4. Electrical specifications at 25°C
5. Hi-Pot: Pri to Sec: 1500Vrms  
Pri to Fb: 500Vrms  
Winding to Core: 1500Vrms  
(for schematic b primary is connected to secondary at pin3 the primary is not isolated from the secondary)
6. Tape and reel: 400/13" reel, 44mm tape width

# SMD CCFL TRANSFORMERS

## STEFD15 SERIES



### FEATURES:

- Transformers for use in CCFL power supplies
- Supply output current up to 11mA
- Frequency range from 40 to 80KHz
- Deliver output power from 2.5 to 6 Watts
- Ferrite core material

### ELECTRICAL CHARACTERISTICS@25°C

#### 2.5WATT VERSIONS

Part Number	Pout watts	OCL typ (uH)	DCR (Ω)Max Pri	DCR (Ω)Max Sec	Turns ratio Ns/Np ± 2%	Vpri (V) Max	Vsec (V) Max	Is Max	Vpri abnormal	Vsec abnormal	Size	Sche-matic
STEFD15-201	2.5	43	0.22	285	67	20	1340	0.005	30	2000	A	A
STEFD15-202	2.5	43	0.22	285	67	20	1340	0.005	30	2000	A	B
STEFD15-203	2.5	26	0.19	285	86	15	1340	0.005	23	2000	A	B
STEFD15-204	2.5	19	0.22	285	100	13	1340	0.005	23	2000	A	B
STEFD15-205	2.5	43	0.22	285	67	20	1340	0.005	30	2000	B	A
STEFD15-206	2.5	43	0.22	285	67	20	1340	0.005	30	2000	B	B
STEFD15-207	2.5	26	0.21	285	86	15	1340	0.005	23	2000	B	B
STEFD15-208	2.5	19	0.19	285	100	13	1340	0.005	23	2000	B	B

#### 4WATT VERSIONS

Part Number	Pout watts	OCL typ (uH)	DCR (Ω)Max Pri	DCR (Ω)Max Sec	Turns ratio Ns/Np ± 2%	Vpri (V) Max	Vsec (V) Max	Is Max	Vpri abnormal	Vsec abnormal	Size	Sche-matic
STEFD15-401	4	44	0.22	165	50	26	1340	0.007	40	2000	C	C
STEFD15-402	4	27	0.16	220	86	15	1340	0.007	23	2000	C	C
STEFD15-403	4	20	0.16	220	100	13	1340	0.007	23	2000	C	C
STEFD15-404	4	20	0.16	330	125	10	1340	0.007	16	2000	C	C
STEFD15-405	4	44	0.22	165	50	26	1340	0.007	40	2000	D	C
STEFD15-406	4	27	0.16	220	86	15	1340	0.007	23	2000	D	C
STEFD15-407	4	20	0.16	220	100	13	1340	0.007	23	2000	D	C
STEFD15-408	4	20	0.16	330	125	10	1340	0.007	16	2000	D	C

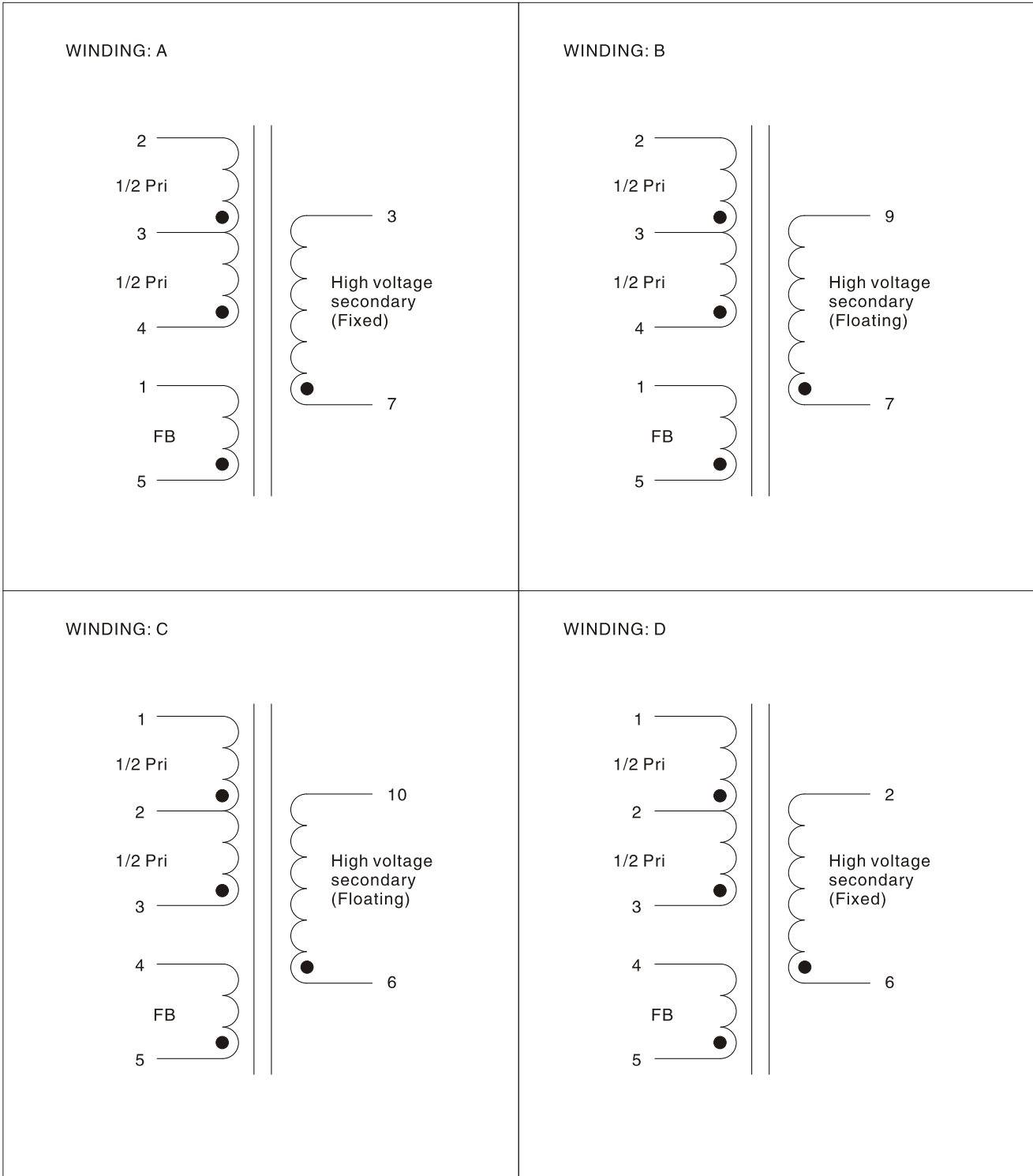
## 6WATT VERSIONS

Part Number	Pout watts	OCL typ (uH)	DCR ( $\Omega$ )Max Pri	DCR ( $\Omega$ )Max Sec	Turns ratio Ns/Np $\pm 2\%$	Vpri (V) Max	Vsec (V) Max	Is Max	Vpri abnormal	Vsec abnormal	Size	Sche-matic
STEF15-601	6	44	0.16	176	67	20	1340	0.011	30	2000	E	D
STEF15-602	6	44	0.16	132	50	26	1340	0.011	40	2000	E	C
STEF15-603	6	44	0.16	176	67	20	1340	0.011	30	2000	E	C
STEF15-604	6	27	0.132	176	86	15	1340	0.011	23	2000	E	C
STEF15-605	6	20	0.132	176	100	13	1340	0.011	23	2000	E	C
STEF15-606	6	20	0.132	291	125	11	1340	0.011	16	2000	E	C
STEF15-607	6	44	0.16	176	67	20	1340	0.011	30	2000	F	D
STEF15-608	6	44	0.16	132	50	26	1340	0.011	40	2000	F	C
STEF15-609	6	44	0.16	176	67	20	1340	0.011	30	2000	F	C
STEF15-610	6	27	0.132	176	86	15	1340	0.011	23	2000	F	C
STEF15-611	6	20	0.132	176	100	13	1340	0.011	23	2000	F	C
STEF15-612	6	20	0.132	291	125	11	1340	0.011	16	2000	F	C

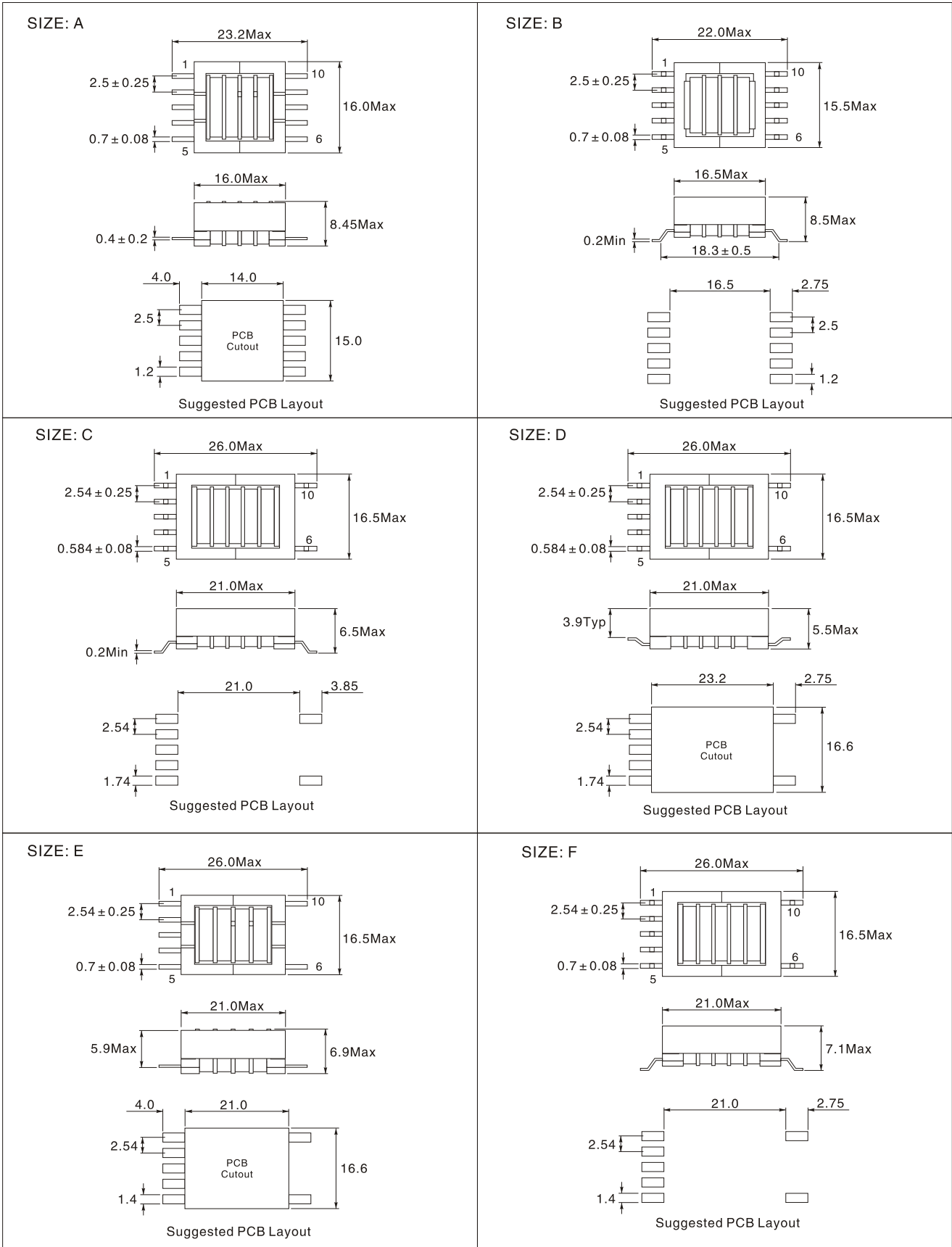
### Notes:

1. Solderability: Leads shall meet MIL-STD-2020G, Method 208H for solderability
2. Flammability: UL94V-0
3. ASTM oxygen index: > 28%
4. Insulation System: Class F 155°C.
5. All listed parameters are to be within tolerance from -40°C to +85°C unless otherwise noted
6. Storage Temperature Range: -55°C to +125°C
7. Aqueous wash compatible
8. Electrical and mechanical specifications 100% tested
9. RoHS Compliant Component

## WINDING



## SIZE

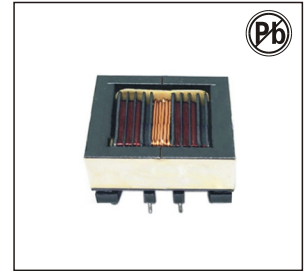


# DIP CCFL TRANSFORMERS

## TEFD25 SERIES

### FEATURES:

- Transformers for use in CCFL power supplies
- Supply output current up to 30mA
- Frequency range from 40 to 80KHz
- Deliver output power 14 Watts
- Ferrite core material

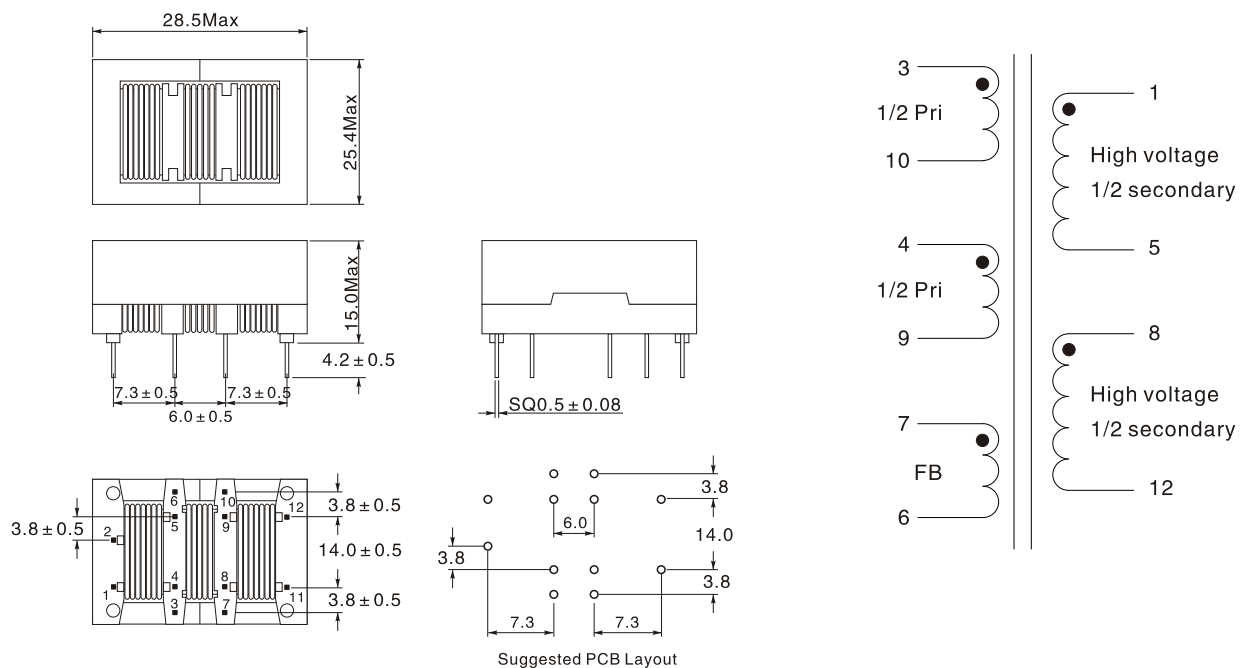


### ELECTRICAL CHARACTERISTICS@25°C

#### 14WATT VERSIONS

Part Number	Pout watts	OCL typ (uH)	DCR (Ω)Max Pri	DCR (Ω)Max Sec	Turns ratio Ns/Np ±2%	Vpri (V) Max	Vsec (V) Max	Is Max	Vpri abnormal	Vsec abnormal
TEFD25-1401	14	24	0.030	262	67	20	1340	0.03	30	2000
TEFD25-1402	14	16	0.024	272	86	15	1340	0.03	30	2000
TEFD25-1403	14	16	0.024	314	100	13	1340	0.03	30	2000

### SIZE & WINDING



#### Notes:

1. Solderability: Leads shall meet MIL-STD-2020G, Method 208H for solderability
2. Flammability: UL94V-0
3. ASTM oxygen index: > 28%
4. Insulation System: Class F 155°C.
5. All listed parameters are to be within tolerance from -40°C to +85°C unless otherwise noted
6. Storage Temperature Range: -55°C to +125°C
7. Aqueous wash compatible
8. Electrical and mechanical specifications 100% tested
9. RoHS Compliant Component