

XF SERIES TRANSFORMERS

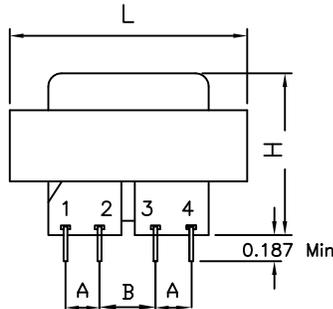
General Specs:

- * Power Range: 1.1 to 36VA
- * Isolation: 2500Vac
- * Input: 115V single or 115/230V Dual
- * Output: Series, Parallel or Dual
- * Construction: Split bobbin
- * Insulation System: Class F 155°C
- * Mounting Hardware: See Chart
- * Flammability: UL94V-0
- * Custom versions available – consult factory

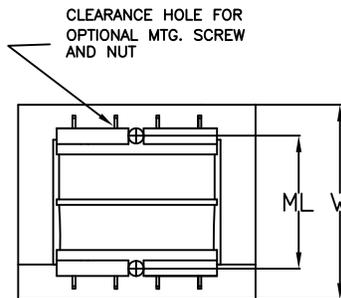
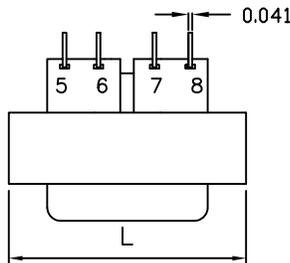
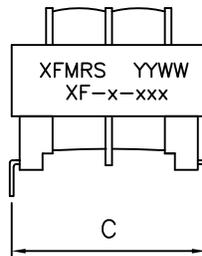
Agency Standards:

- * CUL Recognition Pending

Mechanical Dimensions:



NOTE: PINS 2&3 OMITTED ON SINGLE PRIMARY VERSIONS



BOTTOM VIEW

TOLERANCES:

.xxx ± 0.25 & 0.001

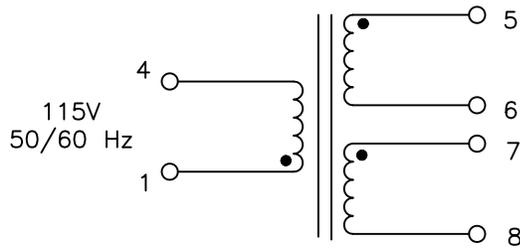
Dimensions in MM & INCH

Size	VA	L	W	H	ML	A	B	C	Optional Mtg Screw & Nut	Wgt
2	1.1	1.37"	1.12"	0.93"	-	0.250"	0.250"	1.200"	None	0.17lbs
		34.9	28.6	23.8	-	6.4	6.4	30.5		0.08Kg
3	2.4	1.37"	1.12"	1.18"	-	0.250"	0.250"	1.200"	None	0.25lbs
		34.9	28.6	30.1	-	6.4	6.4	30.5		0.11Kg
4	6	1.62"	1.31"	1.31"	1.06"	0.250"	0.350"	1.280"	4-40x1.37Nylon	0.44lbs
		41.3	33.3	33.3	26.9	6.4	8.9	32.5	4-40x34.9mm	0.20Kg
5	12	1.87"	1.56"	1.43"	1.25"	0.300"	0.400"	1.410"	4-40x1.37Nylon	0.70lbs
		47.6	39.7	36.5	31.8	7.6	10.2	35.8	4-40x34.9mm	0.32Kg
6	20	2.25"	1.87"	1.43"	1.50"	0.300"	0.400"	1.600"	4-40x1.37Nylon	0.80lbs
		57.2	47.6	36.5	38.1	7.6	10.2	40.6	4-40x34.9mm	0.36Kg
7	36	2.62"	2.18"	1.56"	+	0.400"	0.400"	1.850"	+	1.1 lbs
		66.7	55.5	39.7	+	10.2	10.2	47.0	+	0.50Kg

+Size 7 has 4 mtg. holes on 2.18x1.75 center for a #6 screw. Need not be nylon

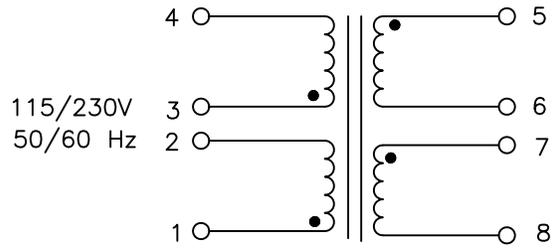
XF SERIES TRANSFORMERS

Schematic:



6 PIN
TYPE XF

See mechanical drawing
for correct footprint



8 PIN
TYPE XFD

Part Number		Secondary RMS Rating	
Single 115V 6Pin	Dual 115/ 230V 8Pin	Series	Parallel
XF-2-10	XFD-2-10	10VCT@0.11A	5V@0.22A
XF-3-10	XFD-3-10	10VCT@0.25A	5V@0.5A
XF-4-10	XFD-4-10	10VCT@0.6A	5V@1.2A
XF-5-10	XFD-5-10	10VCT@1.2A	5V@2.4A
XF-6-10	XFD-6-10	10VCT@2.0A	5V@4.0A
XF-7-10	XFD-7-10	10VCT@3.6A	5V@7.2A
XF-2-12	XFD-2-12	12.6VCT@0.09A	6.3V@0.18A
XF-3-12	XFD-3-12	12.6VCT@0.2A	6.3V@0.4A
XF-4-12	XFD-4-12	12.6VCT@0.5A	6.3V@1.0A
XF-5-12	XFD-5-12	12.6VCT@1.0A	6.3V@2.0A
XF-6-12	XFD-6-12	12.6VCT@1.6A	6.3V@3.2A
XF-7-12	XFD-7-12	12.6VCT@2.85A	6.3V@5.7A
XF-2-16	XFD-2-16	16VCT@0.07A	8V@0.14A
XF-3-16	XFD-3-16	16VCT@0.15A	8V@0.3A
XF-4-16	XFD-4-16	16VCT@0.4A	8V@0.8A
XF-5-16	XFD-5-16	16VCT@0.8A	8V@1.6A
XF-6-16	XFD-6-16	16VCT@1.25A	8V@2.5A
XF-7-16	XFD-7-16	16VCT@2.25A	8V@4.5A
XF-2-20	XFD-2-20	20VCT@0.055A	10V@0.11A
XF-3-20	XFD-3-20	20VCT@0.12A	10V@0.24A
XF-4-20	XFD-4-20	20VCT@0.3A	10V@0.6A
XF-5-20	XFD-5-20	20VCT@0.6A	10V@1.2A
XF-6-20	XFD-6-20	20VCT@1.0A	10V@2.0A
XF-7-20	XFD-7-20	20VCT@1.8A	10V@3.6A
XF-2-24	XFD-2-24	24VCT@0.045A	12V@0.09A
XF-3-24	XFD-3-24	24VCT@0.1A	12V@0.2A
XF-4-24	XFD-4-24	24VCT@0.25A	12V@0.5A
XF-5-24	XFD-5-24	24VCT@0.5A	12V@1.0A
XF-6-24	XFD-6-24	24VCT@0.8A	12V@1.6A
XF-7-24	XFD-7-24	24VCT@1.5A	12V@3.0A

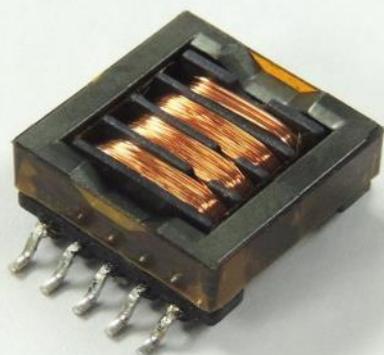
Part Number		Secondary RMS Rating	
Single 115V 6Pin	Dual 115/ 230V 8Pin	Series	Parallel
XF-2-28	XFD-2-28	28VCT@0.04A	14V@0.08A
XF-3-28	XFD-3-28	28VCT@0.085A	14V@0.17A
XF-4-28	XFD-4-28	28VCT@0.2A	14V@0.4A
XF-5-28	XFD-5-28	28VCT@0.42A	14V@0.84A
XF-6-28	XFD-6-28	28VCT@0.7A	14V@1.4A
XF-7-28	XFD-7-28	28VCT@1.3A	14V@2.6A
XF-2-36	XFD-2-36	36VCT@0.03A	18V@0.06A
XF-3-36	XFD-3-36	36VCT@0.065A	18V@0.13A
XF-4-36	XFD-4-36	36VCT@0.17A	18V@0.34A
XF-5-36	XFD-5-36	36VCT@0.35A	18V@0.7A
XF-6-36	XFD-6-36	36VCT@0.55A	18V@1.1A
XF-7-36	XFD-7-36	36VCT@1.0A	18V@2.0A
XF-2-48	XFD-2-48	48VCT@0.023A	24V@0.046A
XF-3-48	XFD-3-48	48VCT@0.05A	24V@0.1A
XF-4-48	XFD-4-48	48VCT@0.125A	24V@0.25A
XF-5-48	XFD-5-48	48VCT@0.25A	24V@0.5A
XF-6-48	XFD-6-48	48VCT@0.4A	24V@0.8A
XF-7-48	XFD-7-48	48VCT@0.75A	24V@1.5A
XF-2-56	XFD-2-56	56VCT@0.02A	28V@0.04A
ST-3-56	XFD-3-56	56VCT@0.045A	28V@0.09A
XF-4-56	XFD-4-56	56VCT@0.11A	28V@0.22A
XF-5-56	XFD-5-56	56VCT@0.22A	28V@0.44A
XF-6-56	XFD-6-56	56VCT@0.35A	28V@0.7A
XF-7-56	XFD-7-56	56VCT@0.65A	28V@1.3A
XF-2-120	XFD-2-120	120VCT@0.01A	60V@0.02A
XF-3-120	XFD-3-120	120VCT@0.02A	60V@0.04A
XF-4-120	XFD-4-120	120VCT@0.05A	60V@0.1A
XF-5-120	XFD-5-120	120VCT@0.1A	60V@0.2A
XF-6-120	XFD-6-120	120VCT@0.16A	60V@0.32A
XF-7-120	XFD-7-120	120VCT@0.3A	60V@0.6A

Note: For dual output, use parallel voltage and series current ratings for each Secondary.

XFMRs, Inc. is a global company dedicated to creating and providing quality magnetic components to customers at a competitive cost. Manufactured magnetic products consist of audio, chokes, converters, current, filament, flyback, inductors, hybrid, input, inverter, isolation, linear, output, pulse, power, rectifier, switching, high voltage, impedance matching, and wide band and high frequency (IF and RF).

XFMRs' North American manufacturing facility is located domestically in Indiana, and works in conjunction with multiple manufacturing facilities off-shore to allow for the fulfillment of quick and large volume orders. XFMRs serves the telecommunications, computer, photo, automotive, security, consumer electronics, and other related markets by providing them with specially designed magnetic components to meet their needs.

XFMRs works very closely with their customers to develop custom parts for each specific application.



CCFL- Series Transformers

- ◆ Transformers for use in CCFL power supplies
- ◆ Supply output current up to 30 milli-Amps
- ◆ Frequency range from 40 to 80KHz
- ◆ Deliver output power from 2.5 to 14 Watts
- ◆ Ferrite core material

2.5 WATT VERSIONS

Part Number	Pout watts	OCL typ (uH)	DCR Max (Ω) Pri	DCR Max (Ω) Sec	Turns Ratio Ns/Np ±2%	Vpri volts Max	Vsec volts Max	Is Max	Vpri abnormal	Vsec abnormal	Mech Diagram	EE Schematic
XF110652	2.5	43	0.22	285	67	20	1340	0.005	30	2000	A	A
XF110655	2.5	43	0.22	285	67	20	1340	0.005	30	2000	A	B
XF110657	2.5	26	0.19	285	86	15	1340	0.005	23	2000	A	B
XF110659	2.5	19	0.22	285	100	13	1340	0.005	23	2000	A	B
XF210652	2.5	43	0.22	285	67	20	1340	0.005	30	2000	B	A
XF210655	2.5	43	0.22	285	67	20	1340	0.005	30	2000	B	B
XF210657	2.5	26	0.21	285	86	15	1340	0.005	23	2000	B	B
XF210659	2.5	19	0.19	285	100	13	1340	0.005	23	2000	B	B

4 WATT VERSIONS

Part Number	Pout watts	OCL typ (uH)	DCR Max (Ω) Pri	DCR Max (Ω) Sec	Turns Ratio Ns/Np ±2%	Vpri volts Max	Vsec volts Max	Is Max	Vpri abnormal	Vsec abnormal	Mech Diagram	EE Schematic
XF210403	4	44	0.22	165	50	26	1340	0.007	40	2000	C	C
XF210407	4	27	0.16	220	86	15	1340	0.007	23	2000	C	C
XF210409	4	20	0.16	220	100	13	1340	0.007	23	2000	C	C
XF210411	4	20	0.16	330	125	10	1340	0.007	16	2000	C	C
XF310403	4	44	0.22	165	50	26	1340	0.007	40	2000	D	C
XF310407	4	27	0.16	220	86	15	1340	0.007	23	2000	D	C
XF310409	4	20	0.16	220	100	13	1340	0.007	23	2000	D	C
XF310411	4	20	0.16	330	125	10	1340	0.007	16	2000	D	C

6 WATT VERSIONS

Part Number	Pout watts	OCL typ (uH)	DCR Max (Ω) Pri	DCR Max (Ω) Sec	Turns Ratio Ns/Np ±2%	Vpri volts Max	Vsec volts Max	Is Max	Vpri abnormal	Vsec abnormal	Mech Dia-gram	EE Schematic
XF110600	6	44	0.16	176	67	20	1340	0.011	30	2000	E	D
XF110603	6	44	0.16	132	50	26	1340	0.011	40	2000	E	C
XF110605	6	44	0.16	176	67	20	1340	0.011	30	2000	E	C
XF110607	6	27	0.132	176	86	15	1340	0.011	23	2000	E	C
XF110609	6	20	0.132	176	100	13	1340	0.011	23	2000	E	C
XF110611	6	20	0.132	291	125	11	1340	0.011	16	2000	E	C
XF210600	6	44	0.16	176	67	20	1340	0.011	30	2000	F	D
XF210603	6	44	0.16	132	50	26	1340	0.011	40	2000	F	C
XF210605	6	44	0.16	176	67	20	1340	0.011	30	2000	F	C
XF210607	6	27	0.132	176	86	15	1340	0.011	23	2000	F	C
XF210609	6	20	0.132	176	100	13	1340	0.011	23	2000	F	C
XF210611	6	20	0.132	291	125	11	1340	0.011	16	2000	F	C

14 WATT VERSIONS

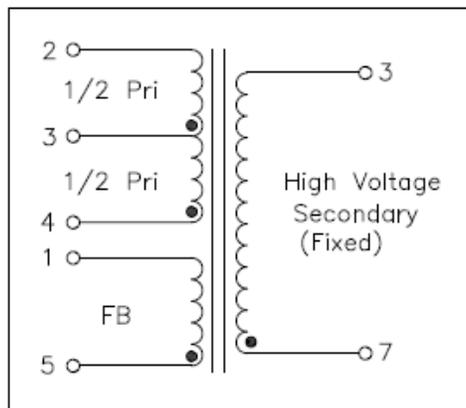
Part Number	Pout watts	OCL typ (uH)	DCR Max (Ω) Pri	DCR Max (Ω) Sec	Turns Ratio Ns/Np ±2%	Vpri volts Max	Vsec volts Max	Is Max	Vpri abnormal	Vsec abnormal	Mech Dia-gram	EE Schematic
XF410805	14	24	0.030	262	67	20	1340	0.030	30	2000	G	E
XF410807	14	16	0.024	272	86	15	1340	0.030	30	2000	G	E
XF410809	14	16	0.024	314	100	13	1340	0.030	30	2000	G	E

Notes:

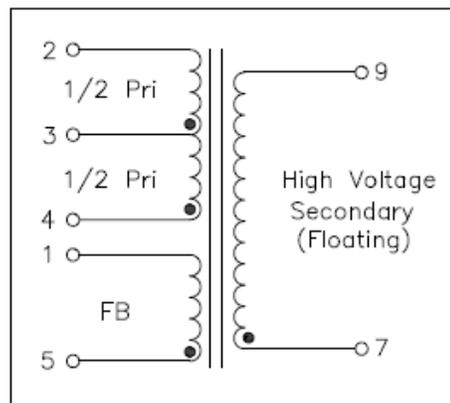
1. Solderability: Leads shall meet MIL-STD-2020G, Method 208H for solderability
2. Flammability: UL94V-0
3. ASTM oxygen index: > 28%
4. Insulation System: Class F 155°C. UL file E151556
5. All listed parameters are to be within tolerance from -40°C to +85°C unless otherwise noted
6. Storage Temperature Range: -55°C to +125°C
7. Aqueous wash compatible
8. Electrical and mechanical specifications 100% tested
9. RoHS Compliant Component

Schematic:

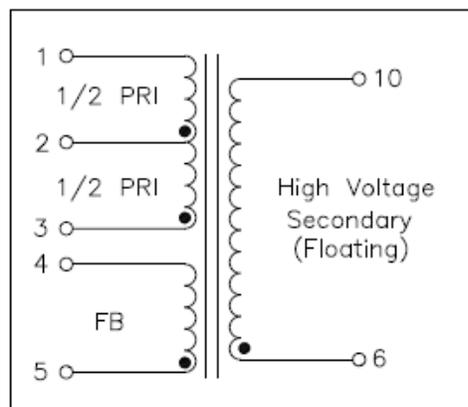
Schematic: A



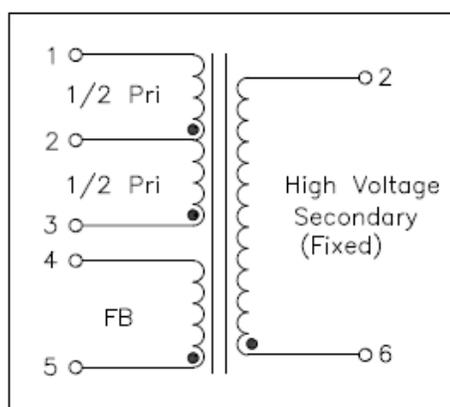
Schematic: B



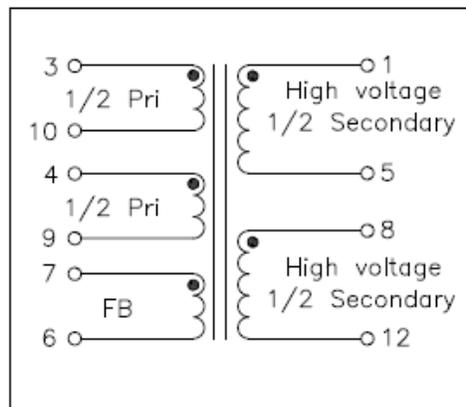
Schematic: C



Schematic: D



Schematic: E



SMD

Notes:

1. Solderability: Leads shall meet MIL-STD-202G, Method 208H for solderability.
2. Flammability: UL94V-0
3. ASTM oxygen index: > 28%
4. Insulation System: Class F 155°C. UL file E151556
5. Operating Temperature : 0°C to +70°C
6. Storage Temperature Range: -40°C to +85°C
7. Aqueous wash compatible
8. SMD Lead Coplanarity: ±0.004"(0.102mm)
9. Electrical and mechanical specifications 100% tested
10. RoHS Compliant Component
11. Recommended IR Reflow peak temp of 250°C Max.

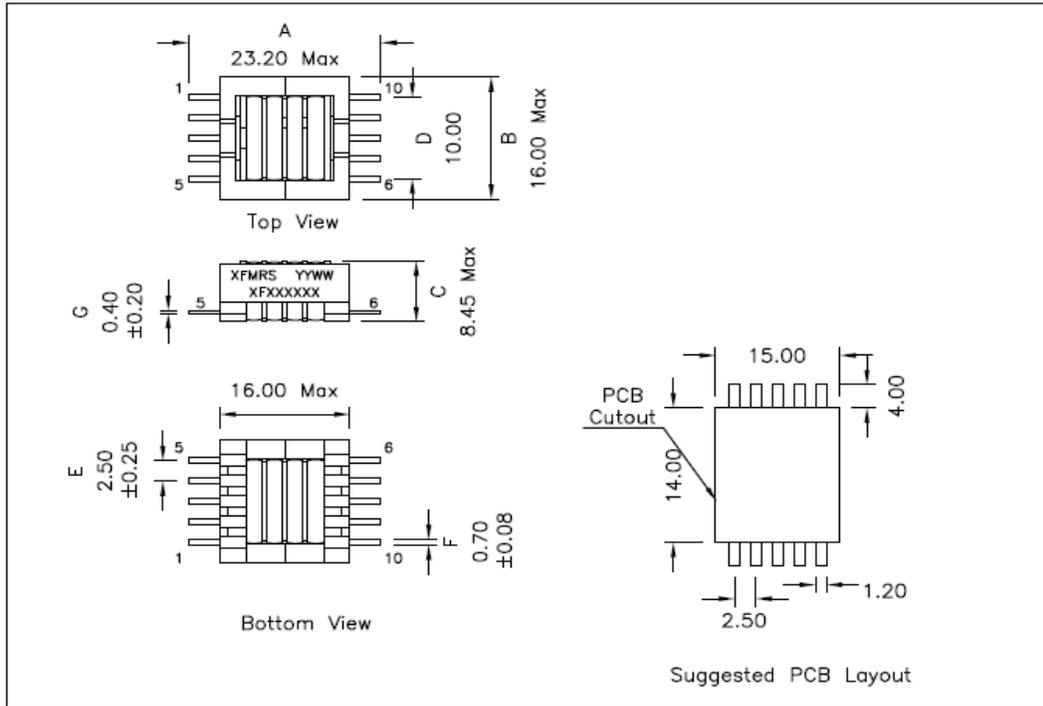
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Notes:

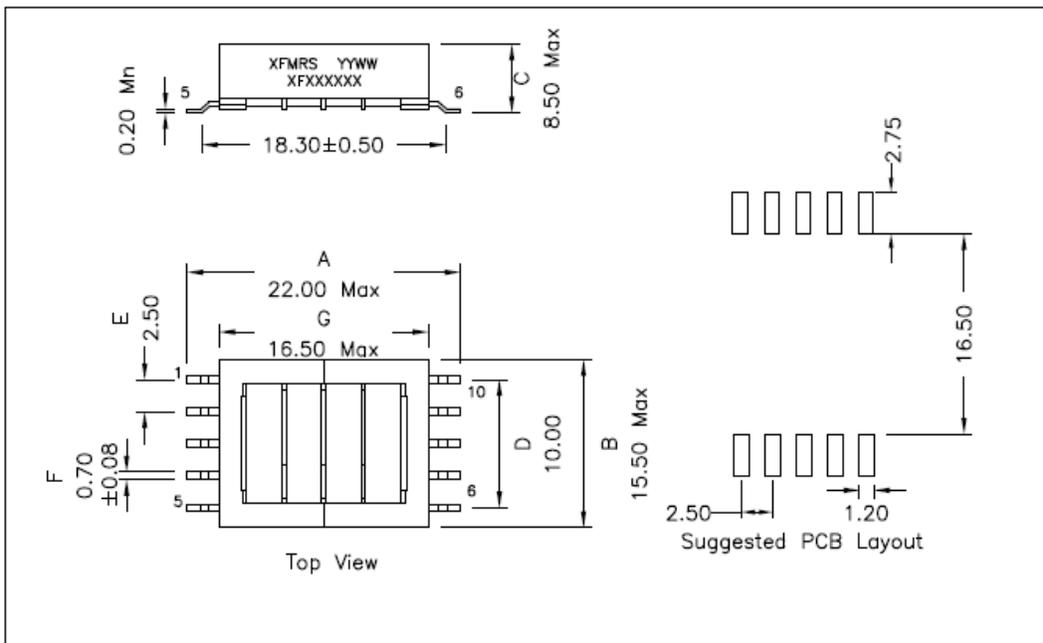
1. Solderability: Leads shall meet MIL-STD-202G, Method 208H for solderability.
2. Flammability: UL94V-0
3. ASTM oxygen index: > 28%
4. Insulation System: Class F 155°C. UL file E151556
5. Operating Temperature : 0°C to +70°C
6. Storage Temperature Range: -40°C to +85°C
7. Aqueous wash compatible
8. Electrical and mechanical specifications 100% tested
9. RoHS Compliant Component

Mechanical Dimensions

Mechanical A

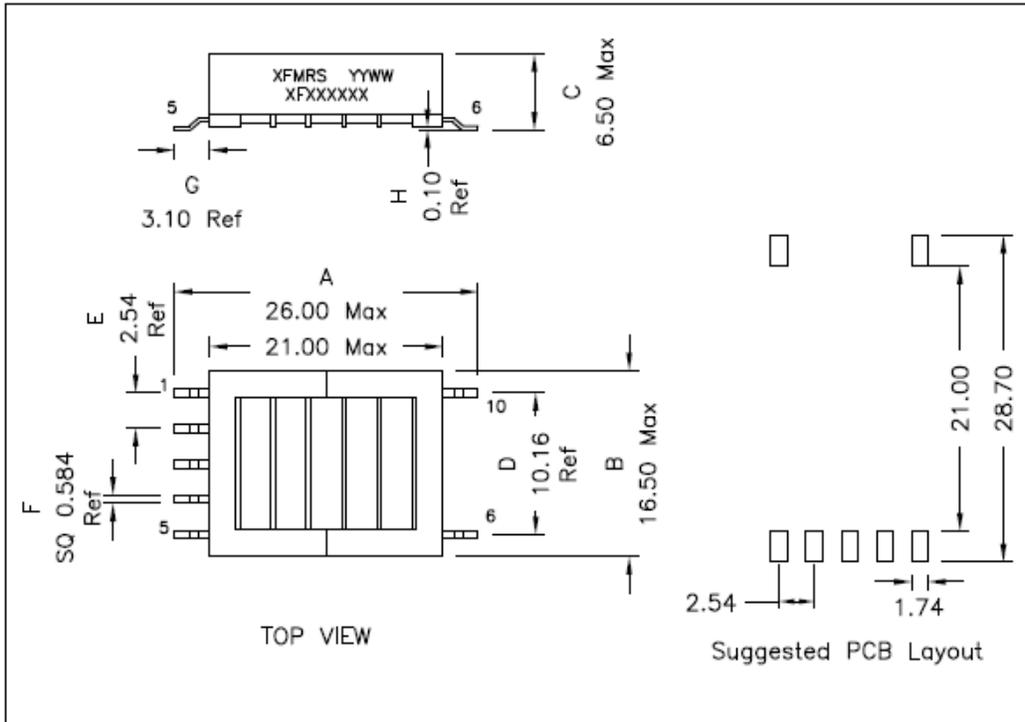


Mechanical B

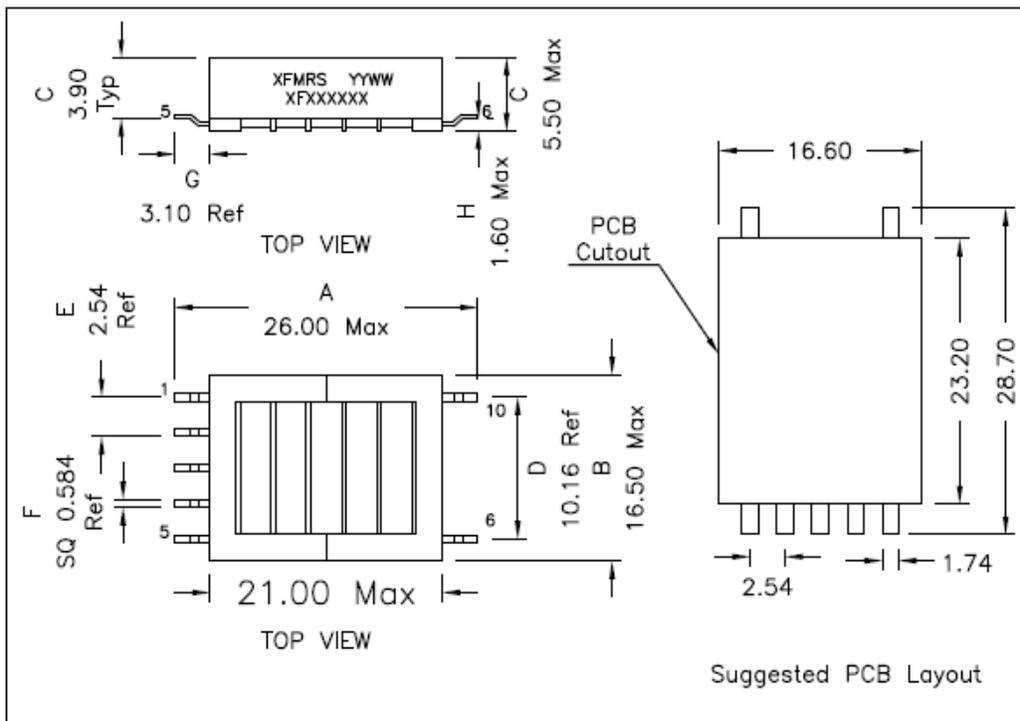


TOLERANCES:
.xx ±0.25
Dimensions in MM

Mechanical C

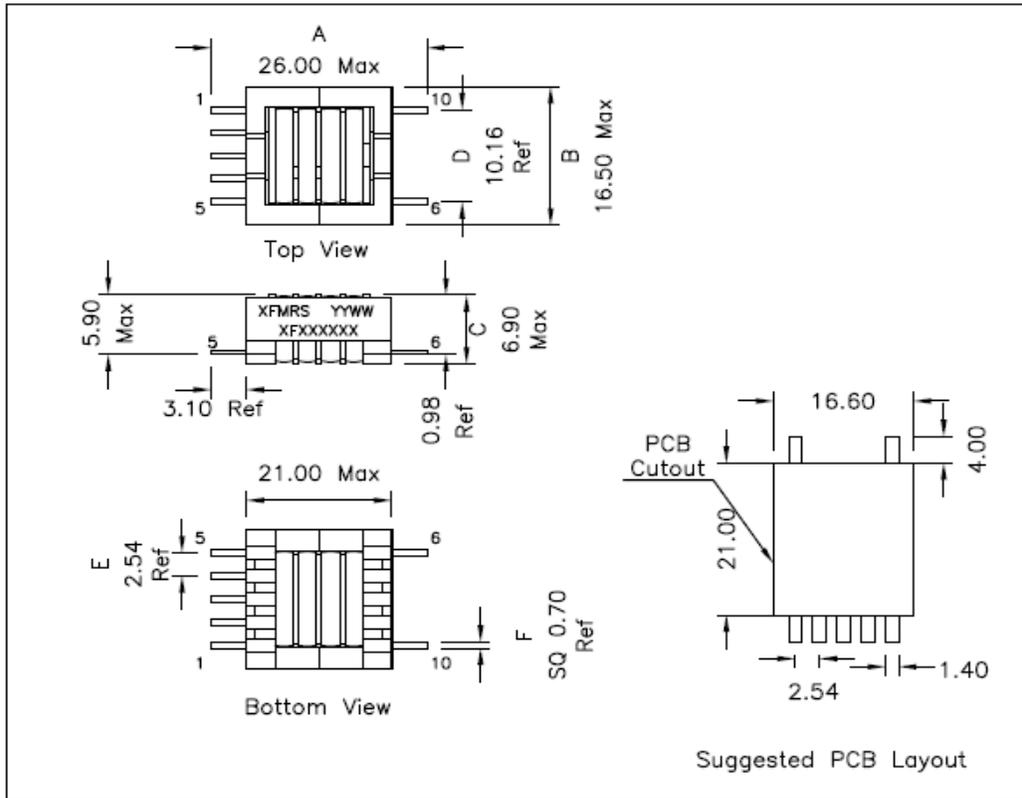


Mechanical D

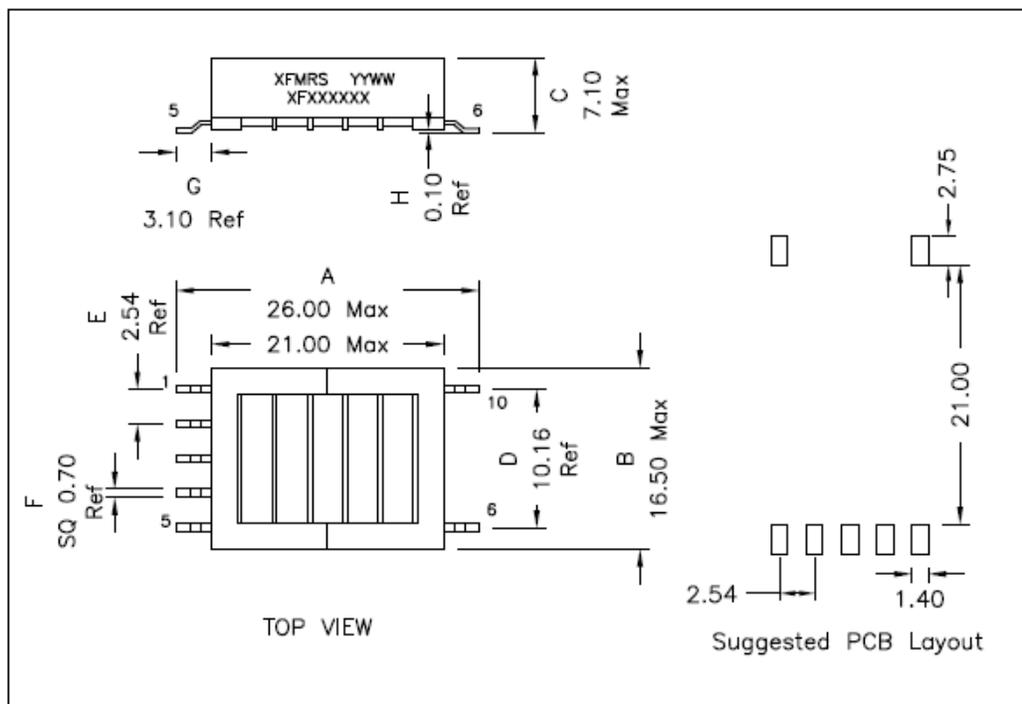


TOLERANCES:
.xx ±0.25
Dimensions in MM

Mechanical E

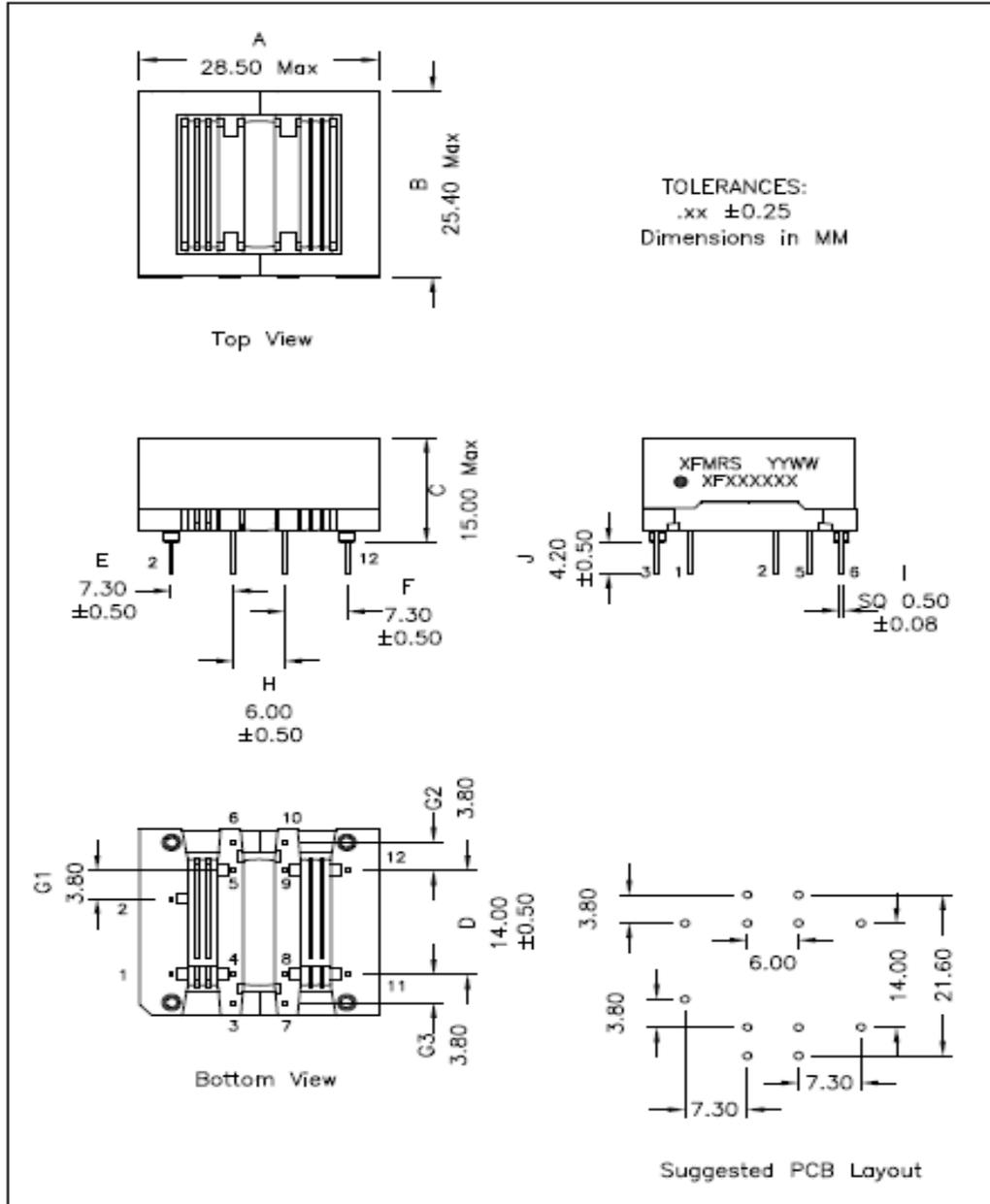


Mechanical F



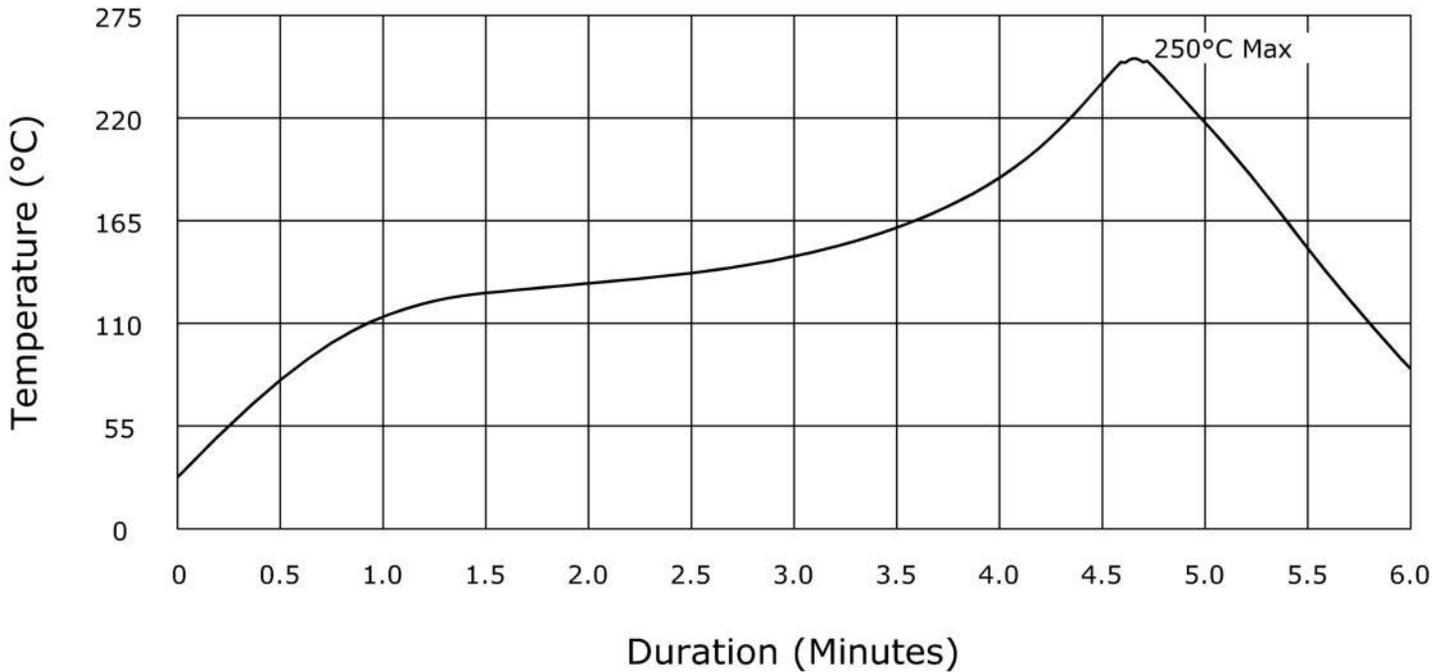
TOLERANCES:
 .xx ±0.25
 Dimensions in MM

Mechanical G



TOLERANCES:
.xx ±0.25
Dimensions in MM

Recommended IR Reflow Profile:



NOTES: Maximum duration at 250°+0/-5° shall be 10-15 seconds.
Maximum duration above 217° shall be 50-120 seconds.
ALL Temperatures refer to topside of the package, measured on the package body surface.

Pin Plating Cross-Section

