



SILVERSTONE[®]
Designing Inspiration

TFX SERIES SST-TX300

The reference TFX power supply

Support standard TFX form factor
300W continuous power output at 40°C operating temperature rated for 24/7 operation
High efficiency with 80 PLUS Bronze certification
Silent running 80mm fan with 18dBA minimum
Support PCI-E 6pin connectors
Active PFC

SPECIFICATION

TFX Form Factor SST-TX300

**300W Switching Power Supply
With Active PFC
80Plus Bronze**

1.0 INPUT:

1.1 VOLTAGE

MINIMUM	NOMINAL	MAXIMUM	UNITS
90	100~240	264	Vrms

1.2 FREQUENCY

47Hz ~ 63Hz

1.3 CURRENT

115/230Vac 6.3A max.

1.4 INRUSH CURRENT

100A max. when AC input 230Vac at 25°C cold start.

1.5 POWER EFFICIENCY

MEET 80 Plus Bronze at 115/230Vac input.

LOAD	5V	3.3V	+12V	-12V	+5VSB	SPEC
20%	1.83A	1.72A	3.59A	0.05A	0.31A	82%
50%	4.58A	4.29 A	10.77A	0.12A	0.78A	85%
100%	9.16A	8.58A	17.74A	0.23A	1.56A	82%

1.6 LEAKAGE CURRENT

3.5mA max.

1.7 POWER FACTOR

PF > 0.90 (full load).

1.8 ErP REQUIREMENT

Meet ErP 2013 requirement

2.0 OUTPUT:

Voltage	+5V	+3.3V	+12V1	+12V2	-12V	+5Vsb
*① Max load	16.0A	15.0A	14.0A	15.0A	0.3A	2.0A
Min load	0.5A	0.3A	0.5A	0.5A	0.0A	0.0A
Peak load	/	21.0A	16.0A	18.0A	/	3.0A
*③ Regulation	+5,-5%	+5,-5%	+5,-5%	+5,-5%	+10,-10%	+5,-5%
*② Ripple & Noise	50mV	50mV	120mV	120mV	120mV	50mV

*① The continuous total output power is 300W max

- The combined power of +5V and +3.3V is 95W max.
- The combined power of +12V1 and +12V2 is 276W max.
- Peak currents may last up to 10 seconds with not more than one occurrence per minute.

*② A 0.1uF ceramic disk capacitor and a 10uF electrolytic capacitors to simulate system loading. The oscilloscope bandwidth is set at 20 MHz coaxial probe will be used to measure it.

* ③ LOAD REGULATION TEST TABLE:

The cross regulation defined as follows , the output regulation should be within the specified range.

Model	Voltage	+3.3V	+5V	+12V1	+12V2	-12V	+5Vsb
300W	LOAD1	0.3A	0.5A	0.5A	0.5A	0A	0A
	LOAD2	6.0A	6.5A	5.5A	4.5A	0.15A	1.0A
	LOAD3	10.0A	13.0A	8.6A	7.0A	0.3A	2.0A
	LOAD4	3.0A	16.0A	8.2A	8.2A	0.3A	2.0A
	LOAD5	15.0A	9.44A	7.5A	8.0A	0.3A	2.0A
	LOAD6	1.0A	5.8A	11.0A	11.0A	0.1A	0.5A

2.1 REMOTE ON/OFF

TTL High/PS-OFF; TTL Low/PS-ON

VIL=0.8Vmax, IIL=-1.6mAmax @Vin=0.4V

VIH=2.0Vmin @Iin=-200uA, VIH=5.25Vmax @open ckt.

2.2 HOLD-UP TIME

16m sec (minimum) at 60% of full load at 230Vac input.

2.3 POWER GOOD DELAY

100-500 msec.

2.4 POWER FAIL DELAY

> 1 msec.

2.5 TURN-ON DELAY TIME

2000 msec max. At Nominal Line Full Load.

2.6 TRANSIENT OVERSHOOT

DC output transient step sizes as below table:

Output voltage	+5V	+3.3V	+12V
Max. step size	30%	30%	40%

Load-changing repetition rate of 10m seconds.

Load slew rated 1.0A/uS and capacitive load as below :

+5V	+3.3V	+12V	-12V	+5Vsb
6000uF	6000uF	6000uF	350uF	350uF

2.7 RISE TIME

20ms max at full load.

3.0 PROTECTION:

When OPP, OVP or short protection is triggered, the main outputs will be latched off. The main outputs can be reset by cycling the DC remote on/off or AC power. +5Vsb output is auto recovery when fault condition removed.

3.1 OVER POWER PROTECTION

Foldback at 360~480W

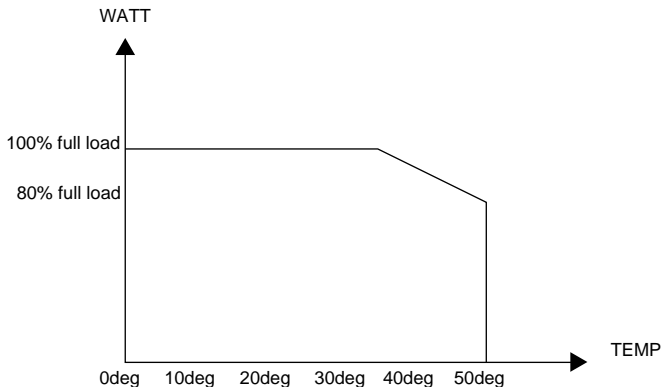
3.2 OVER VOLTAGE PROTECTION

+3.3V output 4.5 Vmax.
 +5.0V output 7.0 Vmax.
 +12.0V output 15.6 Vmax.

3.3 SHORT PROTECTION

All output to GND.

4.0 ENVIRONMENT:



- 4.1 OPERATING TEMP. 0 °C to +40 °C
- 4.2 STORAGE TEMP. -20 °C to +70 °C
- 4.3 OPERATING HUMIDITY 20% to 90%, non-condensing
- 4.4 STORAGE HUMIDITY 5% to 95%, non-condensing
- 4.5 OPERATING ALTITUDE 0 to 10,000 feet
- 4.6 STORAGE ALTITUDE 0 to 50,000 feet

5.0 HI-POT:(Input/Output isolation)

5.1 PRIMARY TO SECONDARY

1800Vac for 1 minute

5.2 INSULATION RESISTANCE

Primary to earth ground 500Vdc , 50M ohms Min.

6.0 CE REQUIREMENTS

6.1 CONDUCTED EMI

1. MEET FCC : Class B
2. MEET CISPR 22 : Class B

6.2 SAFETY STANDARDS

1. MEET CUL (UL 60950)
2. MEET TUV(EN60950)
3. MEET CB (IEC 950)
4. MEET CE
5. MEET CCC

6.3 HARMONIC

1. MEET IEC61000-3-2,Class D

7.0 MTBF at 25°C(demonstrated)

100K hrs minimum

8.0 DIMENSIONS

LxWxH=175 mm x 85 mm x 65 mm

开关电源供应器 有毒有害物质/元素及其化学含量表

部件名称	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
外壳	X	○	○	○	○	○
接头	X	○	○	○	○	○
风扇	X	○	○	○	○	○
电子卡	X	○	○	○	○	○
线材	X	○	○	○	○	○
螺丝	X	○	○	○	○	○
包材	○	○	○	○	○	○

○：表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11364-2014标准规定的限量要求以下。

×：表示该有毒有害物质在该部件材料中的含量超出SJ/T11364-2014标准规定的限量要求。

本表中有×的部件均符合欧盟RoHS法规，即欧盟第2011/65/EU号指令要求。



产品合格证

检验员：检01

生产日期：见产品条码

SilverStone Technology Co., Ltd.

www.silverstonetek.com

support@silverstonetek.com
NO.G11230200