

FEATURES

- PIN-OUT COMPATIBLE WITH LM78XX LINEAR REGULATORS
- SMALL SIZE AND LOW PROFILE:
SIP3 L X W X H = 0.46" X 0.30" X 0.40"
- HIGH EFFICIENCY UP TO 96%
- LOW STANDBY CURRENT
- WIDE INPUT RANGE: 4.6 ~ 36Vdc
- OVER-CURRENT PROTECTION
- SHORT CIRCUIT PROTECTION
- OVER-TEMPERATURE PROTECTION
- LOW OUTPUT RIPPLE AND NOISE
- FIXED SWITCHING FREQUENCY (500 kHz)
- SAFETY MEETS UL60950-1, EN60950-1 AND IEC60950-1
- ISO9001 CERTIFIED MANUFACTURING FACILITIES
- COMPLIANT TO RoHS EU DIRECTIVE 2011/65/EU


STANDARD TYPE
SUFFIX -A

APPLICATIONS

Wireless Network
Telecom/Datacom
Industry Control System
Distributed Power Architectures
Semiconductor Equipment
Microprocessor Power Applications

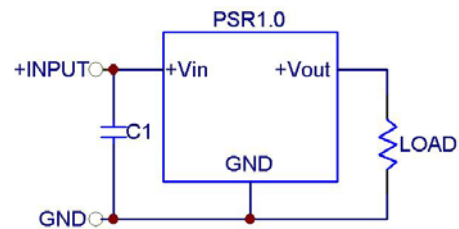
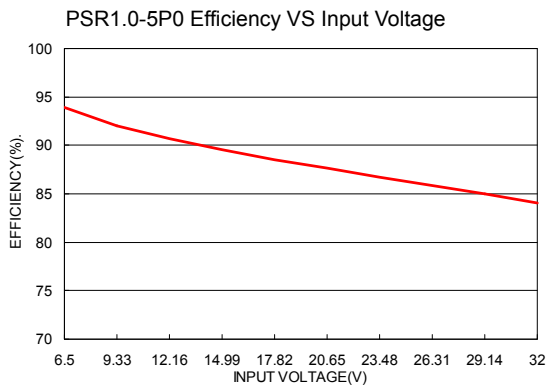
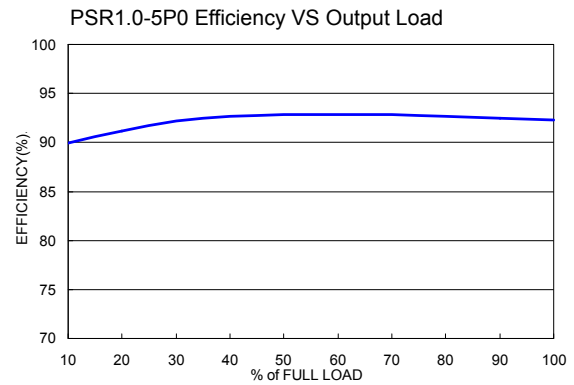
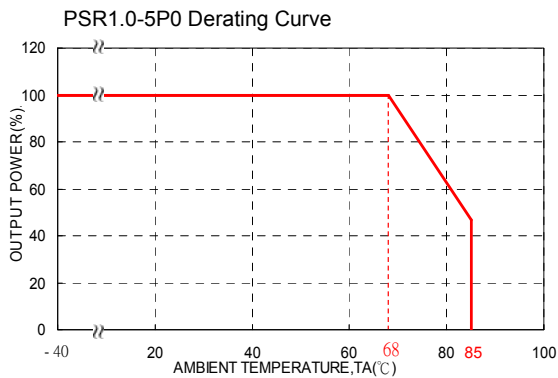
DESCRIPTION

The PSR1.0-SERIES are high performance switching regulators are suited to replace 78xx linear regulators and pin compatible. It provides 1A output current and high efficiency up to 96%.

TECHNICAL SPECIFICATION All specifications are typical at nominal input, full load and 25°C otherwise noted

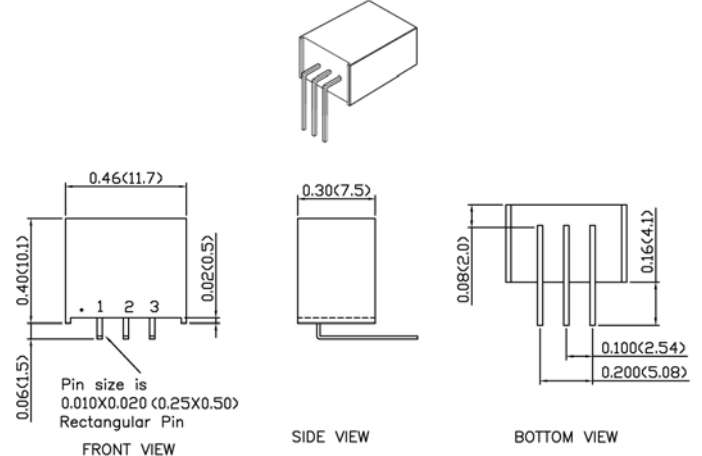
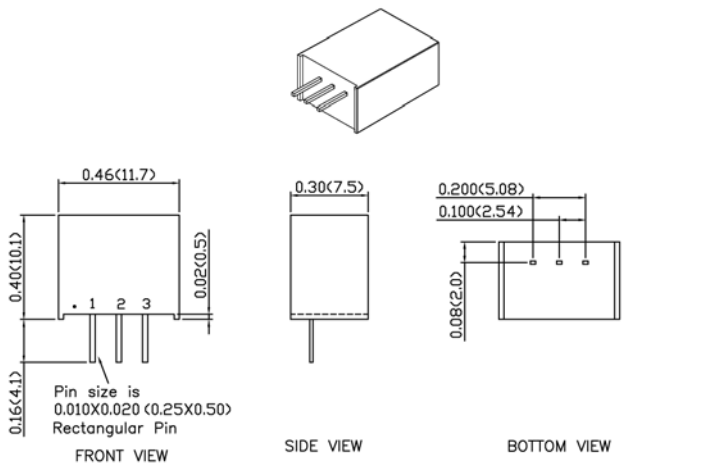
OUTPUT SPECIFICATIONS				INPUT SPECIFICATIONS		
Output current			1A, max.	Input voltage range (Note 5)	4.6VDC ~ 36VDC	
Voltage accuracy			±2%Vo	Vout = 1.2VDC to 3.3VDC	9V nominal input	
Minimum load			0%	Vout = 5VDC to 6.5VDC	12V nominal input	
Line regulation			± 0.2%Vo	Vout = 9VDC to 15VDC	24V nominal input	
Load regulation	10% to 100% of F.L	1.2VDC, 1.5VDC(Standard)	± 0.6%Vo	Maximum input current	Vin=Vin(min), Io=Io(max)	1A
		Others(Standard)	± 0.4%Vo	Input filter		C filter
		1.2VDC, 1.5VDC, 1.8VDC (Suffix-A)	± 1.2%Vo	Input reflected ripple current		150mA
		Others(Suffix-A)	± 0.4%Vo	ENVIRONMENTAL SPECIFICATIONS		
Ripple and noise	Vout = 1.2VDC to 6.5VDC		50mVp-p	Operating temperature range	-40°C ~ +85°C(with derating)	
20MHz bandwidth	Vout = 9VDC to 15VDC		75mVp-p	Storage temperature range	-55°C ~ +125°C	
Temperature coefficient			±0.015%/°C, max.	Thermal shock	MIL-STD-810F	
Dynamic load response	Load change step	Peak deviation	150mV	Over temperature protection	Internal IC junction	150°C
	50%↔100% of F.L.	Recovery time	250µs	FEATURE SPECIFICATIONS		
Output current limit			2.5A	Rise time	Time for Vo to rise from 10% to 90%of Vo	2ms, max.
Output short circuit			Continuous, automatic recovery	Note		
Capacitor Load (Note 4)			470µF, max.	1. MIL-HDBK-217F @Ta=25 °C, Full load.		
Output voltage overshoot-startup	Full Load		1%Vo, max.	2. Typical value at minimum to maximum input voltage and no load.		
GENERAL SPECIFICATIONS				3. Typical value at minimum or maximum input voltage and full load.		
Efficiency (Note 3)			See table	4. Tested with minimum input and constant resistive load.		
Isolation voltage			None	5. With a C1 (22µF/50V) input capacitor for input voltage > 32VDC, the input voltage allows 36 VDC, max.		
Switching frequency			500kHz±10%	CAUTION: This power module is not internally fused. An input line fuse must always be used.		
Design meet safety standard			IEC60950-1, UL60950-1, EN60950-1			
Case material			Non-conductive black plastic			
Base material			None			
Potting material			Silicone (UL94-V0)			
Dimensions			0.46 X 0.30 X 0.40 Inch (11.7 X 7.5 X 10.1 mm)			
Weight			1.9g(0.07oz)			
MTBF (Note 1)	MIL-HDBK-217F		2.571 x 10 ⁷ hrs			

Model Name	Input Voltage(5)	Output Voltage	Output Current		No Load Current(2)	Efficiency (%) (3)	
			Min. Load	Max. Load		Min. Vin	Max. Vin
PSR1.0-1P2	4.6 ~ 36VDC	1.2VDC	0A	1A	1mA	74	62
PSR1.0-1P5	4.6 ~ 36VDC	1.5VDC			1mA	78	65
PSR1.0-1P8	4.6 ~ 36VDC	1.8VDC			1mA	82	69
PSR1.0-2P5	4.6 ~ 36VDC	2.5VDC			1mA	87	75
PSR1.0-3P3	4.75 ~ 36VDC	3.3VDC			2mA	91	78
PSR1.0-5P0	6.5 ~ 36VDC	5.0VDC			1mA	94	84
PSR1.0-6P5	9.0 ~ 36VDC	6.5VDC			1mA	93	87
PSR1.0-9P0	12 ~ 36VDC	9.0VDC			1mA	95	90
PSR1.0-012	15 ~ 36VDC	12VDC			1mA	95	92
PSR1.0-015	18 ~ 36VDC	15VDC			1mA	96	94



MECHANICAL DRAWING FOR STARDANDS

MECHANICAL DRAWING FOR SUFFIX-A



PIN CONNECTION

PIN	DEFINE
1	+VIN
2	GND
3	+VOUT

- All dimensions in Inch (mm)
Tolerance: X.XX±0.02 (X.X±0.5)
X.XXX±0.01 (X.XX±0.25)
- Pin pitch tolerance ±0.01(0.25)
- Pin dimension tolerance ±0.004 (0.1)

PIN CONNECTION

PIN	DEFINE
1	+VIN
2	GND
3	+VOUT