1W DC-DC Regulated Single Output Converter SPR01 series



Features :

- 1000VDC I/O isolation
- Internal SMD technology
- Built-in EMI filter
- Cooling by free air convection
- Non-conductive plastic case
- Single in line package
- DIP packge is available
- 100% burn-in test
- Low cost / High reliability
- Approvals: FCC / CE
- 2 years warranty

SELECTION GUIDE

ORDER NO.		SPR01L-05	SPR01M-05	SPR01N-05	SPR01O-05	SPR01L-09	SPR01M-09	SPR01N-09	SPR01O-09
	DC OUTPUT VOLTAGE	5V				9V			
	INPUT CURRENT RANGE	0 ~ 200mA				0 ~ 100mA			
	EFFICIENCY	57%	65%	62%	62%	57%	60%	60%	56%

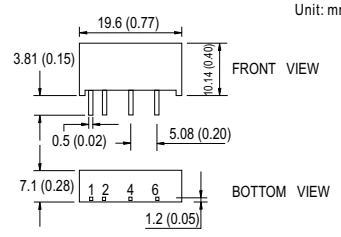
ORDER NO.		SPR01L-12	SPR01M-12	SPR01N-12	SPR01O-12	SPR01L-15	SPR01M-15	SPR01N-15	SPR01O-15
	DC OUTPUT VOLTAGE	12V				15V			
	INPUT CURRENT RANGE	0 ~ 84mA				0 ~ 67mA			
	EFFICIENCY	58%	60%	60%	58%	60%	62%	60%	58%

SPECIFICATION

OUTPUT	RATED POWER	1W							
	RIPPLE & NOISE (max.) Note.2	100mVp-p							
	LINE REGULATION	±1.0%							
	LOAD REGULATION Note.3	±1.0%							
	VOLTAGE ACCURACY	±2.0%(Typ.) ±3.0%(max.)							
	SWITCHING FREQUENCY	50KHz min.							
INPUT	VOLTAGE RANGE	4.5 ~ 5.5V	10.8 ~ 13.2V	21.6 ~ 26.4V	43.2 ~ 52.8V	4.5 ~ 5.5V	10.8 ~ 13.2V	21.6 ~ 26.4V	43.2 ~ 52.8V
	NORMAL VOLTAGE	5V	12V	24V	48V	5V	12V	24V	48V
	INPUT CURRENT Full load	350mA	141mA	67mA	35mA	350mA	141mA	67mA	35mA
	INPUT CURRENT No load	32mA	15mA	10mA	6mA	32mA	15mA	10mA	6mA
	FILTER	Capacitor type							
	PROTECTION	Fuse recommended							
PROTECTION (Note. 4)	OVERLOAD	Momentary							
		Protection type : Hiccup mode, recovers automatically after fault condition is removed							
	SHORT CIRCUIT	Momentary							
		Protection type : Hiccup mode, recovers automatically after fault condition is removed							
ENVIRONMENT	WORKING TEMP.	-25 ~ +71℃ (Refer to output load derating curve)							
	WORKING HUMIDITY	20% ~ 90% RH non-condensing							
	STORAGE TEMP., HUMIDITY	-25 ~ +105℃, 10 ~ 95% RH							
	TEMP. COEFFICIENT	±0.03% / ℃ (0 ~ 50℃)							
	VIBRATION	10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes							
SAFETY & EMC	WITHSTAND VOLTAGE	I/P-O/P:1KVDC							
	ISOLATION RESISTANCE	I/P-O/P: 100M Ohms / 500VDC / 25℃/ 70% RH							
	ISOLATION CAPACITANCE	80pF max.							
	EMI CONDUCTION & RADIATION	Compliance to EN55022 Class B, FCC part 15 Class B							
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8, light industry level, criteria A							
OTHERS	MTBF	700khrs min. MIL-HDBK-217F(25℃)							
	DIMENSION	19.6*7.1*10.2mm or 0.77"*0.28"*0.40" inch (L*W*H)							
	WEIGHT	2.3g							

Mechanical Specification

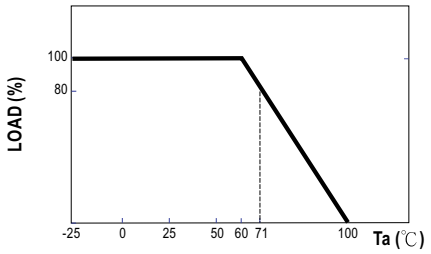
Unit: mm (inch)



Pin Configuration

Pin No.	Output
1	+Vin
2	-Vin
4	-Vout
6	+Vout

Derating Curve



NOTE

1.All parameters are specified at normal input, rated load, 25℃ 70% RH ambient.
2.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf & 47uf capacitor.
3.Load regulation is measured from 10% to 100% rated load.
4.Please prevent the converter from operating in overload or short circuit condition for more than 30 seconds.

Experts on Design-In
Angst+Pfister Sensors and Power

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