



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 package is available
 - 100% burn-in test
 - Low cost / High reliability
 - Approvals: FCC / CE
 - 2 years warranty



SELECTION GUIDE

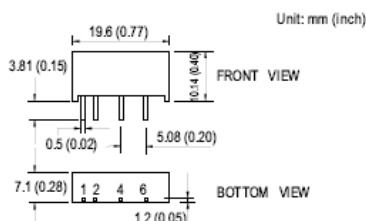
ORDER NO.	SPR01L-05	SPR01M-05	SPR01N-05	SPR01O-05	SPR01L-09	SPR01M-09	SPR01N-09	SPR01O-09
DC OUTPUT VOLTAGE	5V				9V			
INPUT CURRENT RANGE	0 ~ 200mA				0 ~ 100mA			
EFFICIENCY	57%	65%	62%	62%	57%	60%	60%	56%

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.)						
INPUT	SWITCHING FREQUENCY	50KHz min.								
	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
			No load	32mA	15mA	10mA	6mA	32mA	15mA	10mA
PROTECTION (Note.4)	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°C (Refer to output load derating curve)								
	WORKING HUMIDITY	20% ~ 90% RH non-condensing								
	STORAGE TEMP., HUMIDITY	-25 ~ +105°C, 10 ~ 95% RH								
	TEMP. COEFFICIENT	±0.03% / °C (0 ~ 50°C)								
SAFETY & EMC	VIBRATION	10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes								
	WITHSTAND VOLTAGE	I/P-O/P:1KVDC								
	ISOLATION RESISTANCE	I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH								
	ISOLATION CAPACITANCE	80pF max.								
	EMI CONDUCTION & RADIATION	Compliance to EN55022 Class B, FCC part 15 Class B								
OTHERS	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8, light industry level, criteria A								
	MTBF	700khrs min. MIL-HDBK-217F(25°C)								
OTHERS	DIMENSION	19.6*7.1*10.2mm or 0.77**0.28**0.40" inch (L*W*H)								
	WEIGHT	2.3g								

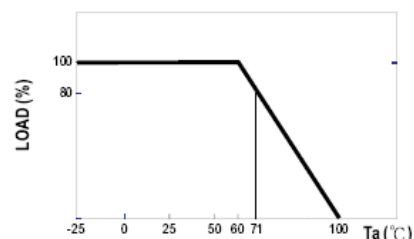
■ Mechanical Specification



■ Pin Configuration

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

■ Derating Curve



NOTE

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