



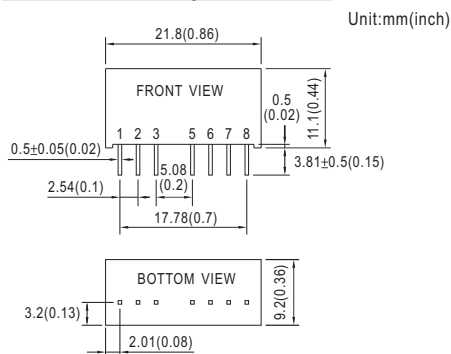
- Features :
 - 2:1 wide input range
 - 4:1 wide input range (Option)
 - 1000VDC I/O isolation
 - 3000VDC I/O isolation (Option)
 - Built-in remote ON/OFF control
 - Built-in EMI filter
 - Protections: Short circuit / Overload
 - Cooling by free air convection
 - Single in line package
 - 100% full load burn-in test
 - Low cost / High reliability
 - Modified models available: output 3.3V/9V
 - 2 years warranty



SPECIFICATION

ORDER NO.	SPA02E-05	SPA02A-05	SPA02B-05	SPA02C-05	SPA02E-12	SPA02A-12	SPA02B-12	SPA02C-12	SPA02E-15	SPA02A-15	SPA02B-15	SPA02C-15																				
OUTPUT	DC VOLTAGE				5V				12V				15V																			
	CURRENT RANGE				40 ~ 400mA				15 ~ 150mA		17 ~ 167mA		12 ~ 120mA		13 ~ 133mA																	
	RATED POWER				2W				1.8W		2W		1.8W		2W																	
	RIPPLE & NOISE (max.) Note.2				60mVp-p				60mVp-p				60mVp-p																			
	LINE REGULATION Note.3				±0.5%																											
	LOAD REGULATION Note.4				±0.5%																											
	VOLTAGE ACCURACY				±2.0%																											
SWITCHING FREQUENCY				100KHz min.																												
INPUT	VOLTAGE RANGE				E: 4.5 ~ 9VDC A: 9 ~ 18VDC B: 18 ~ 36VDC C: 36 ~ 72VDC																											
	EFFICIENCY (Typ.)				71%				76%		76%		74%		74%		80%		80%		82%		76%		80%		80%		80%		78%	
	DC CURRENT				Full load				E: 600mA		A: 225mA		B: 115mA		C: 60mA		No load				E: 50mA		A: 25mA		B: 15mA		C: 8mA					
	FILTER				Pi network																											
	PROTECTION				Fuse recommended																											
PROTECTION (Note. 5)	OVERLOAD				150 ~ 250% rated output power				Protection type : Hiccup mode, recovers automatically after fault condition is removed																							
	SHORT CIRCUIT				All output equipped with short circuit				Protection type : Hiccup mode, recovers automatically after fault condition is removed																							
ENVIRONMENT	WORKING TEMP.				-40 ~ +85°C (Refer to output load derating curve)																											
	WORKING HUMIDITY				20% ~ 90% RH non-condensing																											
	STORAGE TEMP., HUMIDITY				-40 ~ +105°C, 10 ~ 95% RH																											
	TEMP. COEFFICIENT				±0.05% / °C (0 ~ 50°C)																											
	VIBRATION				10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes																											
SAFETY	WITHSTAND VOLTAGE				I/P-O/P:1KVDC																											
	ISOLATION RESISTANCE				I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH																											
	ISOLATION CAPACITANCE				80pF max.																											
	EMC EMISSION				Compliance to EN55022 Class B, FCC part 15 Class B																											
	EMC IMMUNITY				Compliance to EN61000-4-2,3,4,5,6,8 light industry level, criteria A																											
OTHERS	REMOTE CONTROL				Power ON : R.C. ~ +Vin < 1VDC or open ; Power OFF : R.C. ~ +Vin > 4VDC or short																											
	MTBF				600Khrs min. MIL-HDBK-217F(25°C)																											
	DIMENSION				21.8*9.2*11.1mm or 0.86**0.36**0.44" inch (L*W*H)																											
	WEIGHT				4.8g																											

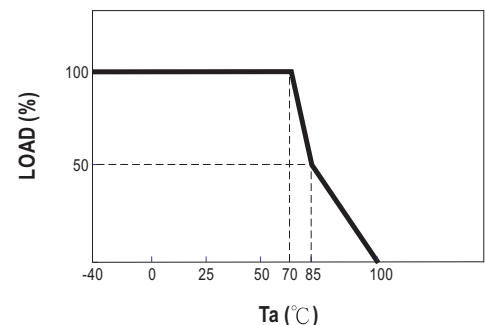
■ Mechanical Specification



■ Pin Configuration

Pin No.	Output
1	-Vin
2	+Vin
3	R.C.
5	N.C.
6	+Vout
7	-Vout
8	N.C.

■ 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.
- Line regulation is measured from low line to high line at rated load.
- 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.