



## ■ Features :

- 2:1 wide input range
- 4:1 wide input range (A / B Type Only)
- 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

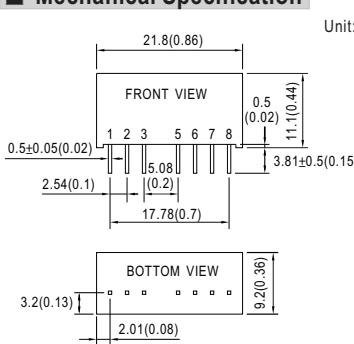


## SPECIFICATION

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		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%	78%	
		DC CURRENT	Full load	E: 600mA	A: 225mA	B: 115mA	C: 60mA								
			No load	E: 50mA	A: 25mA	B: 15mA	C: 8mA								
		FILTER	Capacitor Type												
		REMOTE CONTROL	Power ON : R.C. ~ -Vin < 1VDC or open ; Power OFF : R.C. ~ -Vin > 4VDC												
PROTECTION (Note. 5)		PROTECTION	Fuse recommended												
		OVERLOAD	150 ~ 250% rated output power Protection type : Recovers automatically after fault condition is removed												
		SHORT CIRCUIT	All output equipped with short circuit Protection type : Recovers automatically after fault condition is removed												
ENVIRONMENT		WORKING TEMP.	-40 ~ +85°C (Refer to "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)												
SAFETY		VIBRATION	10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes												
		SAFETY STANDARDS	EAC TP TC 004 approved												
		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 EN55032 Class B, FCC part 15 Class B, EAC TP TC 020												
OTHERS		EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8 light industry level, criteria A, EAC TP TC 020												
		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

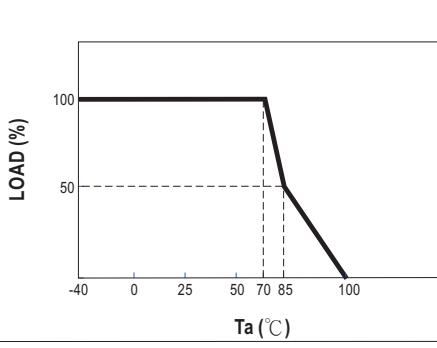
Unit:mm(inch)



## ■ 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.

※ Product Liability Disclaimer : For detailed information, please refer to <https://www.meanwell.com/serviceDisclaimer.aspx>

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