



### ■ Features :

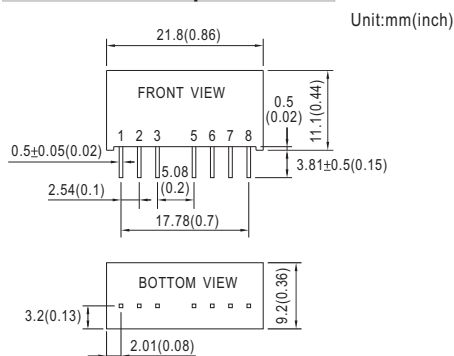
- 2:1 wide input range
- 1000VDC I/O isolation
- Built-in remote ON/OFF control
- Built-in EMI filter
- Protections: Short circuit / Overload
- Cooling by free air convection
- Single in line package
- 100% full load burn-in test
- Low cost / High reliability
- Modified models available: output 3.3V/9V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



### SPECIFICATION

ORDER NO.		SPB03E-05	SPB03A-05	SPB03B-05	SPB03C-05	SPB03E-12	SPB03A-12	SPB03B-12	SPB03C-12	SPB03E-15	SPB03A-15	SPB03B-15	SPB03C-15
OUTPUT	DC VOLTAGE	5V				12V				15V			
	CURRENT RANGE	60 ~ 600mA				25 ~ 250mA				20 ~ 200mA			
	RATED POWER	3W											
	RIPPLE & NOISE (max.) <small>Note.2</small>	50mVp-p				60mVp-p				60mVp-p			
	LINE REGULATION <small>Note.3</small>	±0.5%											
	LOAD REGULATION <small>Note.4</small>	±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.)	74%	73%	77%	78%	76%	80%	80%	79%	75%	80%	80%	82%
	DC CURRENT	Full load	E: 810mA   A: 340mA   B: 165mA   C: 85mA										
		No load	E: 110mA   A: 40mA   B: 20mA   C: 10mA										
	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℃ (Refer to output load derating curve)											
	WORKING HUMIDITY	20% ~ 90% RH non-condensing											
	STORAGE TEMP., HUMIDITY	-40 ~ +105℃, 10 ~ 95% RH											
	TEMP. COEFFICIENT	±0.05% / °C (0 ~ 50℃)											
	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℃ / 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℃)											
	DIMENSION	21.8*9.2*11.1mm or 0.86**0.36**0.44" inch (L*W*H)											
	WEIGHT	4.8g											

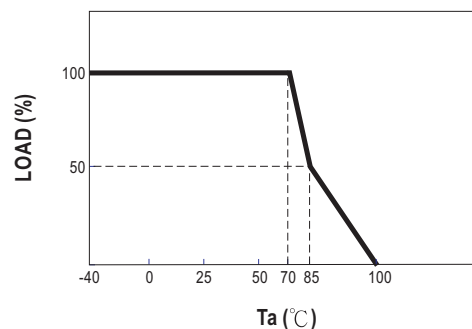
### ■ Mechanical Specification



### ■ 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

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