

Features :

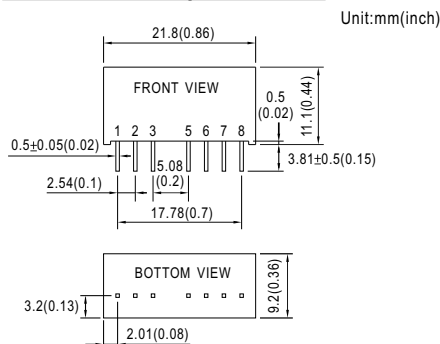
- 2:1 wide input range
- 1000VDC I/O isolation
- Built-in remote ON/OFF control
- Built-in EMI filter
- Protections: Short circuit / Overload
- Cooling by free air convection
- Single in line package
- 100% full load burn-in test
- Low cost / High reliability
- Modified models available: output 3.3V/9V
- 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.) Note.2 | | 50mVp-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.) | | 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°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 | | ±0.05% / °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. | | | | | | | | | | | |
| | 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 | 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 | | | | | | | | | | | |

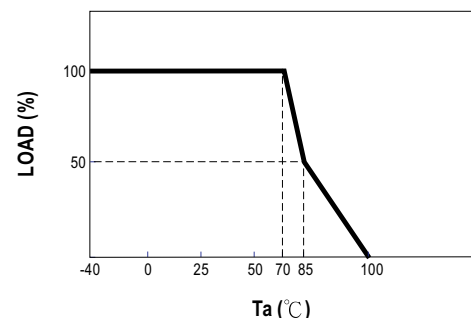
Mechanical Specification



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

- 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.