

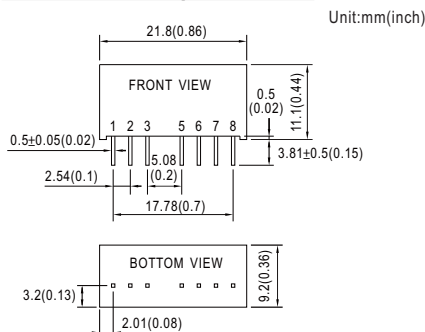
- Features :
  - 2:1 wide input range
  - 1000VDC I/O isolation
  - Built-in remote ON/OFF control
  - Built-in EMI filter
  - Protections: Short circuit / Overload
  - Cooling by free air convection
  - Single in line package
  - 100% full load burn-in test
  - Low cost / High reliability
  - Modified 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                   |           |           |           | 12V         |           |           |           | 15V        |           |           |   |   |     |     |     |     |     |     |     |     |     |     |     |
|                      | CURRENT RANGE                |           |           |           | 25 ~ 250mA  |           |           |           | 20 ~ 200mA |           |           |   |   |     |     |     |     |     |     |     |     |     |     |     |
|                      | RATED POWER                  |           |           |           | 3W          |           |           |           |            |           |           |   |   |     |     |     |     |     |     |     |     |     |     |     |
|                      | RIPPLE & NOISE (max.) Note.2 |           |           |           | 50mVp-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                       |           |           |           |             |           |           |           |            |           |           |   | Capacitor Type  |     |     |     |     |     |     |     |     |     |     |     |
|                      | REMOTE CONTROL               |           |           |           |             |           |           |           |            |           |           |   | Power ON : R.C. ~ -Vin < 1VDC or open ; Power OFF : R.C. ~ -Vin > 4VDC    |     |     |     |     |     |     |     |     |     |     |     |
| PROTECTION (Note. 5) | 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)  |     |     |     |     |     |     |     |     |     |     |     |
|                      | VIBRATION                    |           |           |           |             |           |           |           |            |           |           |   | 10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes  |     |     |     |     |     |     |     |     |     |     |     |
| SAFETY               | 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         |     |     |     |     |     |     |     |     |     |     |     |
| EMC IMMUNITY         |                              |           |           |           |             |           |           |           |            |           |           | Compliance to EN61000-4-2,3,4,5,6,8 light industry level, criteria A, EAC TP TC 020 |   |     |     |     |     |     |     |     |     |     |     |     |
| OTHERS               | 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  |     |     |     |     |     |     |     |     |     |     |     |

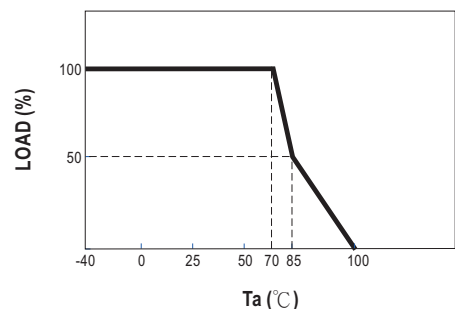
■ Mechanical Specification



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