

KEY FEATURES

- Power Module for PCB Mountable
- 4:1 Wide Input Range
- Regulated Output
- Low Ripple and Noise
- 3-Year Product Warranty


ELECTRICAL SPECIFICATIONS

| Model No. | SB03-24-3.3S | SB03-24-5S | SB03-24-12S | SB03-24-15S | SB03-24-24S | SB03-24-5D | SB03-24-12D | SB03-24-15D |
|-----------------------------------|--------------|-------------|-------------|-------------|-------------|--------------|---------------|---------------|
| Max. Output Wattage (W) | 3W | 3.3W | 4W | 4W | 4W | 3W | 4W | 4W |
| Input Voltage (V.DC.) (Note 3) | 24V (9-36V) | 24V (9-36V) | 24V (9-36V) | 24V (9-36V) | 24V (9-36V) | 24V (9-36V) | 24V (9-36V) | 24V (9-36V) |
| Output Voltage (V.DC.) | 3.3V / 900mA | 5V / 660mA | 12V / 330mA | 15V / 267mA | 24V / 166mA | ±5V / ±300mA | ±12V / ±166mA | ±15V / ±133mA |
| Efficiency (at 12V.DC) | 69% | 72% | 78% | 76% | 76% | 73% | 77% | 75% |

| Model No. | SB03-48-3.3S | SB03-48-5S | SB03-48-12S | SB03-48-15S | SB03-48-24S | SB03-48-5D | SB03-48-12D | SB03-48-15D |
|-----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|
| Max. Output Wattage (W) | 3W | 3.3W | 4W | 4W | 4W | 3W | 4W | 4W |
| Input Voltage (V.DC.) (Note 3) | 48V (18-75V) | 48V (18-75V) | 48V (18-75V) | 48V (18-75V) | 48V (18-75V) | 48V (18-75V) | 48V (18-75V) | 48V (18-75V) |
| Output Voltage (V.DC.) | 3.3V / 900mA | 5V / 660mA | 12V / 330mA | 15V / 267mA | 24V / 166mA | ±5V / ±300mA | ±12V / ±166mA | ±15V / ±133mA |
| Efficiency (at 24V.DC) | 68% | 71% | 77% | 76% | 76% | 75% | 79% | 78% |

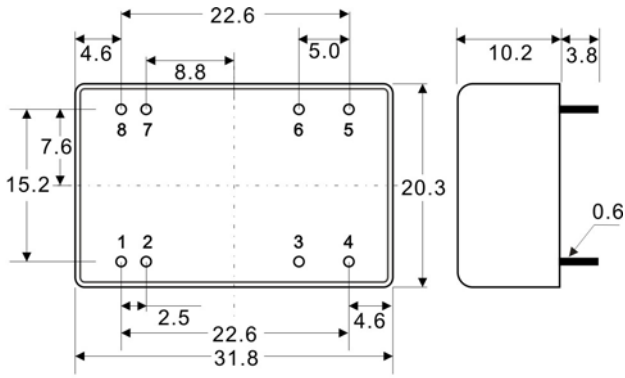
| Model No. | SB03-24-3.3S SB03-48-3.3S | SB03-24-5S SB03-48-5S | SB03-24-12S SB03-48-12S | SB03-24-15S SB03-48-15S | SB03-24-24S SB03-48-24S | SB03-24-5D SB03-48-5D | SB03-24-12D SB03-48-12D | SB03-24-15D SB03-48-15D | |
|------------------------|----------------------------------|---|----------------------------|----------------------------|----------------------------|--------------------------|----------------------------|----------------------------|------|
| Max Output Wattage (W) | 3W | 3.3W | 4W | 4W | 4W | 3W | 4W | 4W | |
| Input | Input Filter π type | | | | | | | | |
| Output | Voltage (V.DC.) | 3.3 | 5 | 12 | 15 | 24 | ±5 | ±12 | ±15 |
| | Voltage Accuracy | ±2% | | | | | | | |
| | Current (mA) max | 900 | 660 | 330 | 267 | 166 | ±300 | ±166 | ±133 |
| | Line Regulation (LL-HL) (typ.) | ±0.5% | | | | | | | |
| | Load Regulation (10-100%) (typ.) | ±3% | ±1% | ±1% | ±1% | ±1% | ±1% | ±1% | ±1% |
| Protection | Ripple & Noise | <0.5% Vout +50mV max (Vp-p) | | | | | | | |
| | Over Power Protection | Works over 120% of rating and recovers automatically. | | | | | | | |
| | Short Circuit Protection | Current limit, auto-recovery | | | | | | | |
| Isolation | Voltage | 1600 VDC. | | | | | | | |
| | Resistance | 10 ⁸ ohms | | | | | | | |
| | Capacitance | 1000 pF | | | | | | | |
| Environment | Operating Temperature | -25°C...+80°C (with derating) | | | | | | | |
| | Storage Temperature | -55°C...+105°C | | | | | | | |
| | Case Temperature | +100°C max. | | | | | | | |
| | Temperature Coefficient | ±0.02% Per°C | | | | | | | |
| | Humidity | 95% RH | | | | | | | |
| Physical | MTBF | >800,000 h @ 25°C (MIL-HDBK-217F) | | | | | | | |
| | Dimension (L x W x H) | 1.25 x 0.8 x 0.4 Inches (31.8 x 20.3 x 10.2 mm) Tolerance ±0.5 mm | | | | | | | |
| | Case Material | Five-side shielded Aluminum with Non-Conductive base, Black Anodize | | | | | | | |
| | Weight | 20 g | | | | | | | |
| Cooling Method | Free-air convection | | | | | | | | |

1.All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

2.Ripple & Noise are measured at 20MHz of bandwidth with 0.1UF & 47UF parallel capacitor.

3.If Input Voltage <10 VDC needs 1% Minimum Load.

MECHANICAL DIMENSION (Top View)

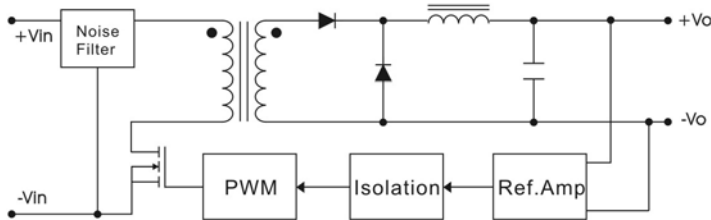


Tolerance ± 0.5 mm

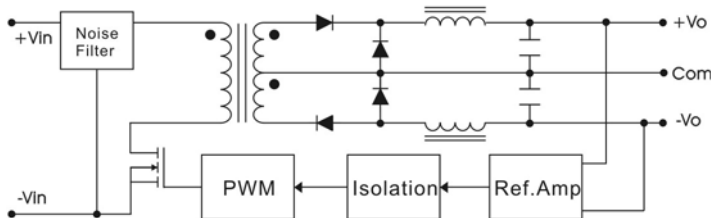
| PIN# | Single | Dual |
|------|--------|--------|
| 1 | -VIN | -VIN |
| 2 | -VIN | -VIN |
| 3 | NC | COMMON |
| 4 | NC | -VOUT |
| 5 | +VOUT | +VOUT |
| 6 | -VOUT | COMMON |
| 7 | +VIN | +VIN |
| 8 | +VIN | +VIN |

BLOCK DIAGRAM

Single Output



Dual Output



DERATING

