

**KEY FEATURES**

- Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Regulated Output
- Low Ripple and Noise
- 3-Years Product Warranty


**ELECTRICAL SPECIFICATIONS**

| Model No.               | SB1R5-5-5S   | SB1R5-5-12S  | SB1R5-5-15S  | SB1R5-5-24S  | SB1R5-5-5D   | SB1R5-5-12D  | SB1R5-5-15D  |
|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Max. Output Wattage (W) | 1.5W         | 1.5W         | 1.5W         | 1.5W         | 1.5W         | 1.44W        | 1.5W         |
| Input Voltage (V.DC.)   | 5V (4.5-5.5) | 5V (4.5-5.5) | 5V (4.5-5.5) | 5V (4.5-5.5) | 5V (4.5-5.5) | 5V (4.5-5.5) | 5V (4.5-5.5) |
| Output Voltage (V.DC.)  | 5V / 300mA   | 12V / 125mA  | 15V / 100mA  | 24V / 63mA   | ±5V / ±150mA | ±12V / ±60mA | ±15V / ±50mA |
| Efficiency              | 60%          | 54%          | 56%          | 58%          | 57%          | 59%          | 61%          |

| Model No.               | SB1R5-12-5S     | SB1R5-12-12S    | SB1R5-12-15S    | SB1R5-12-24S    | SB1R5-12-5D     | SB1R5-12-12D    | SB1R5-12-15D    |
|-------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Max. Output Wattage (W) | 1.5W            | 1.5W            | 1.5W            | 1.5W            | 1.5W            | 1.44W           | 1.5W            |
| Input Voltage (V.DC.)   | 12V (10.8-13.2) | 12V (10.8-13.2) | 12V (10.8-13.2) | 12V (10.8-13.2) | 12V (10.8-13.2) | 12V (10.8-13.2) | 12V (10.8-13.2) |
| Output Voltage (V.DC.)  | 5V / 300mA      | 12V / 125mA     | 15V / 100mA     | 24V / 63mA      | ±5V / ±150mA    | ±12V / ±60mA    | ±15V / ±50mA    |
| Efficiency              | 65%             | 60%             | 62%             | 64%             | 60%             | 61%             | 65%             |

| Model No.               | SB1R5-24-5S     | SB1R5-24-12S    | SB1R5-24-15S    | SB1R5-24-24S    | SB1R5-24-5D     | SB1R5-24-12D    | SB1R5-24-15D    |
|-------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Max. Output Wattage (W) | 1.5W            | 1.5W            | 1.5W            | 1.5W            | 1.5W            | 1.44W           | 1.5W            |
| Input Voltage (V.DC.)   | 24V (21.6-26.4) | 24V (21.6-26.4) | 24V (21.6-26.4) | 24V (21.6-26.4) | 24V (21.6-26.4) | 24V (21.6-26.4) | 24V (21.6-26.4) |
| Output Voltage (V.DC.)  | 5V / 300mA      | 12V / 125mA     | 15V / 100mA     | 24V / 63mA      | ±5V / ±150mA    | ±12V / ±60mA    | ±15V / ±50mA    |
| Efficiency              | 57%             | 55%             | 55%             | 58%             | 54%             | 54%             | 56%             |

| Model No.               | SB1R5-48-5S     | SB1R5-48-12S    | SB1R5-48-15S    | SB1R5-48-24S    | SB1R5-48-5D     | SB1R5-48-12D    | SB1R5-48-15D    |
|-------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Max. Output Wattage (W) | 1.5W            | 1.5W            | 1.5W            | 1.5W            | 1.5W            | 1.44W           | 1.5W            |
| Input Voltage (V.DC.)   | 48V (43.2-52.8) | 48V (43.2-52.8) | 48V (43.2-52.8) | 48V (43.2-52.8) | 48V (43.2-52.8) | 48V (43.2-52.8) | 48V (43.2-52.8) |
| Output Voltage (V.DC.)  | 5V / 300mA      | 12V / 125mA     | 15V / 100mA     | 24V / 63mA      | ±5V / ±150mA    | ±12V / ±60mA    | ±15V / ±50mA    |
| Efficiency              | 53%             | 52%             | 51%             | 54%             | 52%             | 54%             | 54%             |

| Model No.              | SB1R5-5-5S                       | SB1R5-5-12S   | SB1R5-5-15S  | SB1R5-5-24S  | SB1R5-5-5D  | SB1R5-5-12D  | SB1R5-5-15D  |     |
|------------------------|----------------------------------|---|--------------|--------------|-------------|--------------|--------------|-----|
|                        | SB1R5-12-5S                      | SB1R5-12-12S  | SB1R5-12-15S | SB1R5-12-24S | SB1R5-12-5D | SB1R5-12-12D | SB1R5-12-15D |     |
|                        | SB1R5-24-5S                      | SB1R5-24-12S  | SB1R5-24-15S | SB1R5-24-24S | SB1R5-24-5D | SB1R5-24-12D | SB1R5-24-15D |     |
|                        | SB1R5-48-5S                      | SB1R5-48-12S  | SB1R5-48-15S | SB1R5-48-24S | SB1R5-48-5D | SB1R5-48-12D | SB1R5-48-15D |     |
| Max Output Wattage (W) | 1.5W                             | 1.5W  | 1.5W         | 1.5W         | 1.5W        | 1.44W        | 1.5W         |     |
| Input                  | Input Filter π type              |   |              |              |             |              |              |     |
| Output                 | Voltage (V.DC.)                  | 5   | 12           | 15           | 24          | ±5           | ±12          | ±15 |
|                        | Voltage Accuracy                 | ±3%   |              |              |             |              |              |     |
|                        | Current (mA) max                 | 300   | 125          | 100          | 63          | ±150         | ±60          | ±50 |
|                        | Line Regulation (LL-HL) (typ.)   | ±0.3%   |              |              |             |              |              |     |
|                        | Load Regulation (10-100%) (typ.) | ±0.5%   |              |              |             |              |              |     |
|                        | Ripple                           | <0.2% Vout +10mV max (Vp-p)   |              |              |             |              |              |     |
|                        | Noise                            | <0.5% Vout +30mV max (Vp-p)   |              |              |             |              |              |     |
| Switching Frequency    | 20KHz                            |   |              |              |             |              |              |     |
| Protection             | Over Power Protection            | Works over 120% of rating and recovers automatically.               |              |              |             |              |              |     |
|                        | Short Circuit Protection         | Current limit, auto-recovery  |              |              |             |              |              |     |
| Isolation              | Voltage                          | 500 VDC.  |              |              |             |              |              |     |
|                        | Resistance                       | 10 <sup>8</sup> ohms  |              |              |             |              |              |     |
| Environment            | Operating Temperature            | -25°C...+70°C (at Full Load)  |              |              |             |              |              |     |
|                        | Storage Temperature              | -55°C...+105°C  |              |              |             |              |              |     |
|                        | Case Temperature                 | +100°C max.   |              |              |             |              |              |     |
|                        | Temperature Coefficient          | ±0.02% Per°C  |              |              |             |              |              |     |
|                        | Humidity                         | 95% RH  |              |              |             |              |              |     |
|                        | MTBF                             | >1,000,000 h @ 25°C (MIL-HDBK-217F)                                 |              |              |             |              |              |     |
| Physical               | 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                    | Plastic   |              |              |             |              |              |     |
|                        | Weight                           | 13 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 &amp; Noise are measured at 20MHz of bandwidth with 0.1µF &amp; 47µF parallel capacitor.

