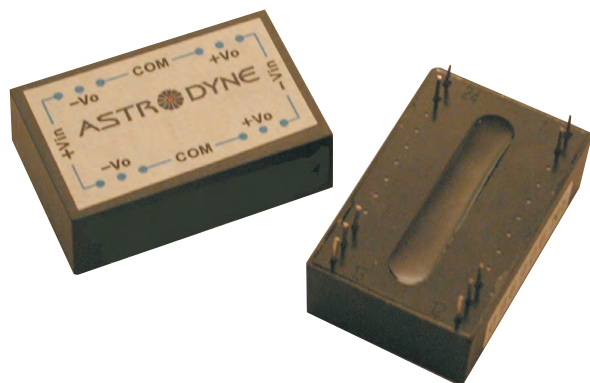




Unit measures 0.8"W x 1.25"L x 0.4"H

- Low Ripple and Noise
- Regulated Outputs
- 500V Isolation
- Short Circuit Protection
- Standard Pinouts
- Input PI Filter

| Model Number         | Output Voltage | Output Amps | Input Range   |
|----------------------|----------------|-------------|---------------|
| <b>SINGLE OUTPUT</b> |                |             |               |
| SB1R5-55S            | 5 VDC          | 300         | 4.5-5.5 VDC   |
| SB1R5-125S           |                | 300         | 10.8-13.2 VDC |
| SB1R5-245S           |                | 300         | 21.6-26.4 VDC |
| SB1R5-485S           |                | 300         | 43.2-52.8 VDC |
| SB1R5-512S           | 12 VDC         | 125         | 4.5-5.5 VDC   |
| SB1R5-1212S          |                | 125         | 10.8-13.2 VDC |
| SB1R5-2412S          |                | 125         | 21.6-26.4 VDC |
| SB1R5-4812S          |                | 125         | 43.2-52.8 VDC |
| SB1R5-515S           | 15 VDC         | 100         | 4.5-5.5 VDC   |
| SB1R5-1215S          |                | 100         | 10.8-13.2 VDC |
| SB1R5-2415S          |                | 100         | 21.6-26.4 VDC |
| SB1R5-4815S          |                | 100         | 43.2-52.8 VDC |
| SB1R5-524S           | 24VDC          | 63          | 4.5-5.5 VDC   |
| SB1R5-1224S          |                | 63          | 10.8-13.2 VDC |
| SB1R5-2424S          |                | 63          | 21.6-26.4 VDC |
| SB1R5-4824S          |                | 63          | 43.2-52.8 VDC |



Unit measures 0.8"W x 1.25"L x 0.4"H

- Low Ripple and Noise
- Regulated Outputs
- 500V Isolation
- Short Circuit Protection
- Standard Pinouts
- Input PI Filter

| Model Number       | Output Voltage | Output Amps | Input Range   |
|--------------------|----------------|-------------|---------------|
| <b>DUAL OUTPUT</b> |                |             |               |
| SB1R5-55D          | +/-5 VDC       | +/-150      | 4.5-5.5 VDC   |
| SB1R5-125D         |                | +/-150      | 10.8-13.2 VDC |
| SB1R5-245D         |                | +/-150      | 21.6-26.4 VDC |
| SB1R5-485D         |                | +/-150      | 43.2-52.8 VDC |
| SB1R5-512D         | +/-12 VDC      | +/-60       | 4.5-5.5 VDC   |
| SB1R5-1212D        |                | +/-60       | 10.8-13.2 VDC |
| SB1R5-2412D        |                | +/-60       | 21.6-26.4 VDC |
| SB1R5-4812D        |                | +/-60       | 43.2-52.8 VDC |
| SB1R5-515D         | +/-15 VDC      | +/-50       | 4.5-5.5 VDC   |
| SB1R5-1215D        |                | +/-50       | 10.8-13.2 VDC |
| SB1R5-2415D        |                | +/-50       | 21.6-26.4 VDC |
| SB1R5-4815D        |                | +/-50       | 43.2-52.8 VDC |

## Isolated and Regulated 1.5 WATT Modular DC/DC Converters

## SB1R5 series

### INPUT SPECIFICATIONS

|                       |                |               |
|-----------------------|----------------|---------------|
| Input Voltage Ranges: | 5 VDC Nominal  | 4.5-5.5 VDC   |
|                       | 12 VDC Nominal | 10.8-13.2 VDC |
|                       | 24 VDC Nominal | 21.6-26.4 VDC |
|                       | 48 VDC Nominal | 43.2-52.8 VDC |

### OUTPUT SPECIFICATIONS

|                           |                       |          |
|---------------------------|-----------------------|----------|
| Voltage and Current       | See Selection Chart   |          |
| Load Regulation           | 10% to FL             | +/- 0.5% |
| Line Regulation           | (HL-LL)               | +/- 0.3% |
| Temperature Coefficient   | +/-0.02%/°C           |          |
| Ripple/Noise(Single/Dual) | 0.7% +40mVp-p max.    |          |
| Voltage Accuracy          | +/- 3%                |          |
| Short Circuit Protection  | Continuous            |          |
| Efficiency                | 55D, 125D, 245D, 485D | 52%      |
|                           | 512S, 512D, 515D,     |          |
|                           | 1212S, 1212D, 1215D,  |          |
|                           | 2412S, 2412D, 2415D,  |          |
|                           | 4812S, 4812D, 4815D   | 54%      |
|                           | 55S, 515S, 524S,      |          |
|                           | 125S, 1215S, 1224S,   |          |
|                           | 245S, 2415S, 2424S,   |          |
|                           | 485S, 4815S, 4824S    | 55%      |

### GENERAL SPECIFICATIONS

|                      |                  |
|----------------------|------------------|
| Input-Out Isolation  | 500VDC           |
| Isolation Resistance | 10-9nth Ohm min. |
| Switching Frequency  | 20Khz            |

### ENVIRONMENTAL SPECIFICATIONS

|                     |                     |
|---------------------|---------------------|
| Oper. Temperature   | -25 to +71°C(FL)    |
| Storage Temperature | -55 to +105°C *     |
| Cooling             | Free Air Convection |
| MTBF                | 568,608 Hrs         |

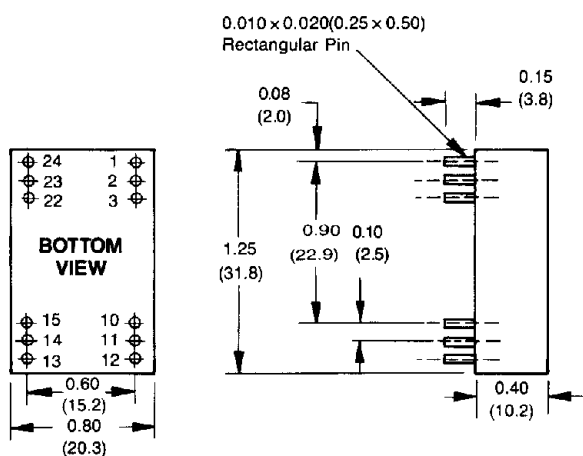
### PHYSICAL SPECIFICATIONS

|               |                              |
|---------------|------------------------------|
| Case Material | Non-Conductive Black Plastic |
| Construction  | Fully Encapsulated           |
| Weight        | 0.5 oz, (13g)                |

*All specifications are typical at nominal input, full load, and 25DegC unless otherwise noted*

\* These are stress ratings. Exposure of the devices to any of these conditions may adversely affect long term reliability. Proper operation under conditions other than the standard operating conditions is neither warranted nor implied.

**MECHANICAL DIMENSIONS**



ALL DIMENSIONS IN INCHES(mm)

PIN PITCH TOLERANCE  $\pm 0.35\text{mm}$

| Pin # | Single Outputs | Dual Outputs |
|-------|----------------|--------------|
| 1     | + Input        | + Input      |
| 2     | No Pin         | - Output     |
| 3     | No Pin         | Common       |
| 10    | - Output       | Common       |
| 11    | + Output       | + Output     |
| 12    | - Input        | - Input      |
| 13    | - Input        | - Input      |
| 14    | + Output       | + Output     |
| 15    | - Output       | Common       |
| 22    | NC             | Common       |
| 23    | NC             | - Output     |
| 24    | + Input        | + Input      |

**OUTPUT DERATING CURVE**

