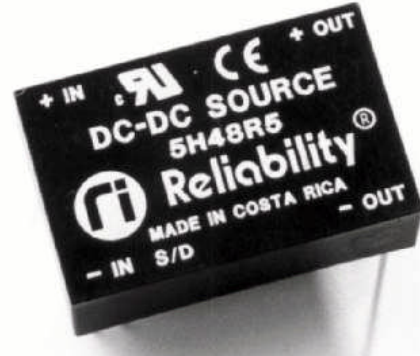


## 5 Watt Regulated DC/DC Converters

### Key Features

- High Density, 12.5 W/cu.in.
- Wide Input Ranges
- Overload/Short Circuit Protection
- SMD Technology
- FCC Section 15 Sub Part J,
- Class A Radiated and Conducted
- CE (LVD)
- L-C Input Filter
- UL, CSA Approved (48Vi only)
- Remote On/Off
- 1500 VDC Isolation



### Applications

- Wireless Communications
- Satellite Guidance Systems
- Cellular Base Stations
- Analog Systems
- Private Branch Exchanges (PBX, PABX)
- Distributed Power Systems
- Industrial Control Systems

### General Electrical Specifications

(Specifications at Nominal Input and 25 C, nominal input voltage and rated output current unless otherwise noted.)

| PARAMETER                | LIMITS               | CONDITIONS               |
|--------------------------|----------------------|--------------------------|
| Input Voltage Range      | See Selection Guide) |                          |
| Input Filter             | Common Mode Section  |                          |
| Input Ripple Current     | 200 ma (P-P)         | Typical                  |
| Input/Output Isolation   | 1500 VDC             |                          |
| Output Voltage Accuracy  | 2%                   | Full Load Nominal Line   |
| Minimum Load             | 10% of Full Load     |                          |
| Output Noise             | 100mV (P-P)          | 20 MHZ Bandwidth         |
| Line Regulation          | 0.5%                 | Full Load                |
| Load Regulation          | 0.5%                 | 10% to 100% of Full Load |
| Efficiency               | 80% Typical          | 5, 12V Output            |
|                          | 76% Typical          | 2.5, 3.3V Output         |
| Remote On/Off            | Active Low           | With respect to Pin 1    |
| Operating Temperature    | -40 °C to +85 °C     | No Derating              |
| Storage Temperature      | -55 °C to +125 °C    |                          |
| Short Circuit Protection | Continuous           |                          |
| Oversvoltage Protection  | 3.3 VDC              | 2.5 VDC Output           |
|                          | 4.3 VDC              | 3.3 VDC Output           |
|                          | 6.2 VDC              | 5.0 VDC Output           |
|                          | 15 VDC               | 12 VDC Output            |
|                          | 18 VDC               | 15 VDC Output            |

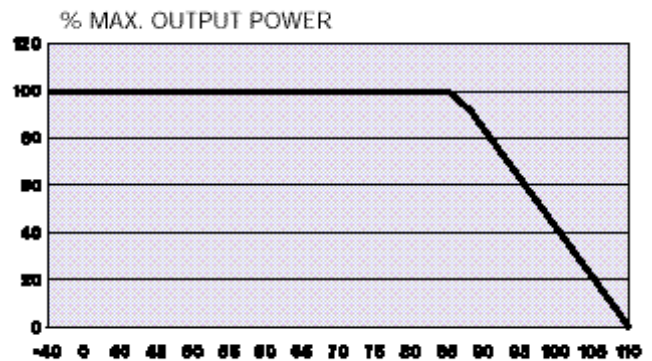
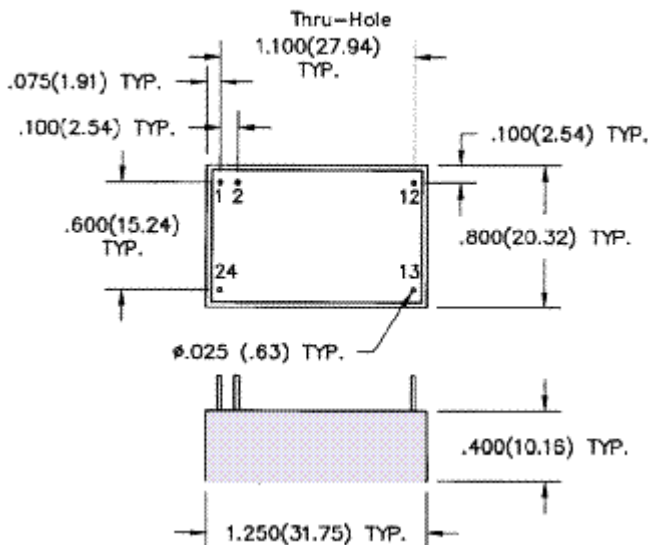
**NOTE:** During testing, the 10% minimum load should be resistive. If an active load is used, it must become active at approximately 80% of the power supply output.

**SELECTION GUIDE**

| Device Type | Input Voltage | Input Current<br>A (Max) | Output Voltage | Output Current<br>A (Max) |
|-------------|---------------|--------------------------|----------------|---------------------------|
| 5H18R5      | 9-36          | 0.380                    | 4.90 – 5.10    | 1.0                       |
| 5H24R5      | 12-36         | 0.270                    | 4.90 – 5.10    | 1.0                       |
| 5HI24R5     | 12-36         | 0.270                    | 4.90 – 5.10    | 1.0                       |
| 5H24R9      | 12-36         | 0.265                    | 8.82 – 9.18    | 0.56                      |
| 5H24R15     | 12-36         | 0.261                    | 14.7 - 15.3    | 0.33                      |
| 5H48R2.5    | 18-75         | 0.137                    | 2.45 - 2.55    | 2.0                       |
| 5H48R3.3    | 18-75         | 0.135                    | 3.23 - 3.37    | 1.5                       |
| 5H48R5      | 18-75         | 0.132                    | 4.90 - 5.10    | 1.0                       |
| 5HI48R5     | 18-75         | 0.132                    | 4.90 - 5.10    | 1.0                       |
| 5HI48R5HV   | 18-75         | 0.132                    | 4.90 - 5.10    | 1.0                       |
| 5H48R12     | 18-75         | 0.132                    | 11.76 - 12.24  | 0.42                      |

**Pin Connections: “5H” model types “5HI” model types**

| Pin # | Function | Function |
|-------|----------|----------|
| 1     | - Input  | + Input  |
| 2     | Enable   | NC       |
| 12    | - Output | - Output |
| 13    | + Output | + Output |
| 24    | + Input  | - Input  |

**Mechanical Specification (dimensions in inches)**
**WEIGHT: 15 GRAMS**
**TEMPERATURE DERATING**

**AMBIENT TEMPERATURE: DEG. C**
**NOTES (ALL DEVICES & PACKAGES):**

- All dimensions in parentheses are metric.
- Tolerances unless otherwise specified:  
 .xx ± .03 (.76) .xxx = ± .015 (.38)

| Reliability Power Locations  |   |
|--|---|
| <b>HEADQUARTERS &amp; CUSTOMER SERVICE</b>   | <b>SALES</b>  |
| Reliability Power, Incorporated<br>33 Musick<br>Irvine, CA 92618 USA<br>Tel: (949) 305-6700<br>Fax: (949) 305-6701<br><a href="http://www.reliabilitypower.com">www.reliabilitypower.com</a> | Reliability Power, Incorporated<br>Attention: SALES<br>Tel: (805) 449-1667<br>Fax: (805) 557-4530<br><a href="mailto:sales@reliabilitypower.com">sales@reliabilitypower.com</a> |