

## Features

## Regulated Converters

- 15W 1" x 2" Package (50.1x25.4x10.8mm)
- 1.6kVDC Isolation
- Wide Input 2:1 & 4:1
- Regulated Output
- UL94V-0 Package Material
- Continuous Short Circuit Protection
- Remote ON/OFF-Control for Single Types
- Efficiency to 87%

## ECONOLINE

DC/DC-Converter

# REC15-S\_DRW(Z)/H Series

15 Watt

1" x 2"

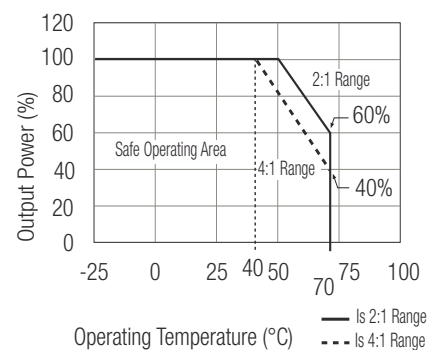
Single & Dual Output



Designed to meet EN-60950-1  
UL-60950-1 Pending



## Derating-Graph (Ambient Temperature)



## Selection Guide

| Part Number       | Input Voltage (VDC) | Output Voltage (VDC) | Output Current (mA) | Efficiency (%) |
|-------------------|---------------------|----------------------|---------------------|----------------|
| REC15-xx3.3SRW/H  | 9-18, 18-36, 36-75  | 3.3                  | 3000                | 77-79          |
| REC15-xx05SRW/H   | 9-18, 18-36, 36-75  | 5                    | 3000                | 80-83          |
| REC15-xx12SRW/H   | 9-18, 18-36, 36-75  | 12                   | 1250                | 82-86          |
| REC15-xx15SRW/H   | 9-18, 18-36, 36-75  | 15                   | 1000                | 84-87          |
| REC15-xx24SRW/H   | 9-18, 18-36, 36-75  | 24                   | 625                 | 84-87          |
| REC15-xx3.3SRWZ/H | 9-36, 18-75         | 3.3                  | 3000                | 76             |
| REC15-xx05SRWZ/H  | 9-36, 18-75         | 5                    | 3000                | 78-82          |
| REC15-xx12SRWZ/H  | 9-36, 18-75         | 12                   | 1250                | 82-84          |
| REC15-xx15SRWZ/H  | 9-36, 18-75         | 15                   | 1000                | 83-84          |
| REC15-xx05DRWZ/H  | 10-40, 18-75        | ±5                   | ±1500               | 78             |
| REC15-xx12DRWZ/H  | 10-40, 18-75        | ±12                  | ±625                | 79             |
| REC15-xx15DRWZ/H  | 10-40, 18-75        | ±15                  | ±500                | 79             |

2:1

xx = 9-18Vin = 12  
xx = 18-36Vin = 24  
xx = 36-75Vin = 48

4:1

xx = 9-36Vin = 24  
xx = 10-40Vin = 24  
xx = 18-75Vin = 48

\* add suffix "CTRL" for optional Remote ON/OFF-Control

## Specifications (Core Operating Area)

|   |  |                       |
|---|--|-----------------------|
| Input Voltage Range                             | 2:1 & 4:1  |                       |
| Input Filter                                    | π type   |                       |
| Output Voltage Accuracy                         | ±2% max.   |                       |
| Line Voltage Regulation                         | ±0.5% max.   |                       |
| Load Voltage Regulation (10% to 100% full load) | ±1% max.   |                       |
| Minimum Load                                    | 3.3, 5, ±3.3, ±5Vout                                 | 3%                    |
|   | 12,15, 24V, ±12, ±15Vout                             | 0%                    |
| Ripple  | <0.2% Vout +40mVp-p max.                             |                       |
| Noise   | <0.5% Vout +50mVp-p max.                             |                       |
| Operating Frequency                             | 300kHz typ.  |                       |
| Over Power Protection                           | Works over 120% of rating and recovers automatically |                       |
| Over Voltage Protection                         | Zener diode clamp                                    |                       |
| Short Circuit Protection                        | Current limit, auto-recovery                         |                       |
| Efficiency at Full Load                         | 87% max.   |                       |
| Isolation Voltage                               | (tested for 1 second)                                | 1600VDC min.          |
| Rated Working Voltage                           | (long term isolation)                                | see Application Notes |
| Isolation Capacitance                           | 1000pF   |                       |
| Isolation Resistance                            | 100 MΩ min.  |                       |

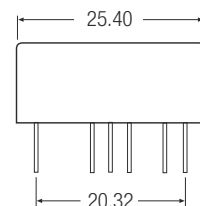
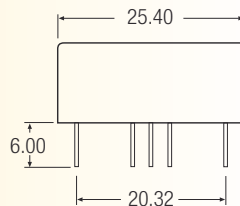
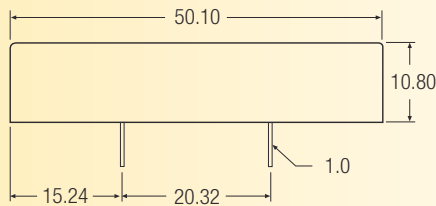
continued on next page

**Specifications (Core Operating Area) cont.**

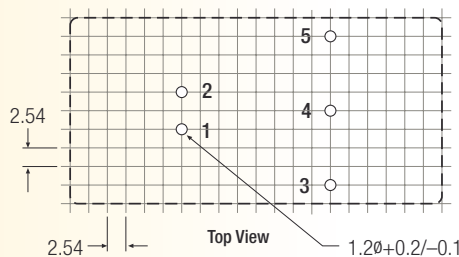
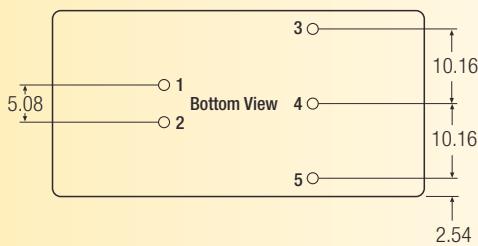
|   |  |                             |
|---|--|-----------------------------|
| IOperating Temperature Range (Natural convection) | 2:1  | -25°C to +70°C (see Graph)  |
| (with derating)                                   | 4:1  | -25°C to +70°C (see Graph)  |
| Storage Temperature Range                         |  | -55°C to +105°C             |
| Case Temperature                                  |  | +100°C max.                 |
| Temperature Coefficient                           |  | ±0.02%/°C                   |
| Relative Humidity                                 |  | 95% RH                      |
| Case Material                                     | Nickel Plated Copper with Non-Conductive Base, Six-side Shielded |                             |
| Cooling Method                                    | Natural convection   |                             |
| Package Weight                                    | 32g  |                             |
| EMI (Conducted & Radiated Emission)               | EN 55022 class A   |                             |
| MTBF (+25°C)                                      | } Detailed Information see using MIL-HDBK 217F                   | 800 x 10 <sup>3</sup> hours |
| (+40°C)   |  |                             |

**Package Style and Pinning (mm) 1" x 2", Wide Input 2:1 & 4:1**

1" x 2" PIN Package



Recommended Footprint Details



Pin Connections

| Pin # | Single | Dual  |
|-------|--------|-------|
| 1     | +Vin   | +Vin  |
| 2     | -Vin   | -Vin  |
| 3     | +Vout  | +Vout |
| 4     | No Pin | Com   |
| 5     | -Vout  | -Vout |

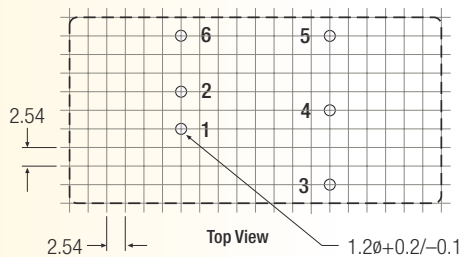
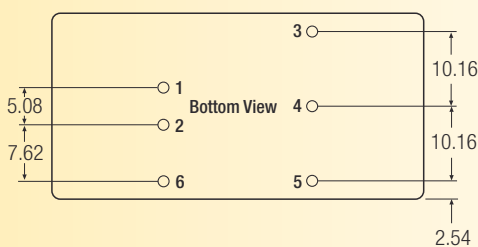
XX.X ± 0.5 mm  
XX.XX ± 0.25 mm

**REC15-Series also available with Remote ON/OFF - Control**

For detailed information please contact your RECOM representative.

REC15-S\_DRW(Z)/H/CTRL

Recommended Footprint Details



Pin Connections

| Pin # | Single | Dual  |
|-------|--------|-------|
| 1     | +Vin   | +Vin  |
| 2     | -Vin   | -Vin  |
| 3     | +Vout  | +Vout |
| 4     | No Pin | Com   |
| 5     | -Vout  | -Vout |
| 6     | CTRL   | CTRL  |

XX.X ± 0.5 mm  
XX.XX ± 0.25 mm