

## Features

### Unregulated Converter

- 1:1 Input Range
- SMD Package
- Efficiency up to 75%
- 1kVDC Isolation
- Operating Temperature from -40°C to +85°C
- UL Certified

#### Selection Guide

tPart Number SMD	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency typ. (%)	Max. Capacitive Load
R1SE**-0505*	5	5	200	75	1000µF

\* add suffix -R for tape & reel packing

#### Case and Pinning Options

\*\* without marking denotes 5 pins out of 8 fitted  
with marking 8 denotes 8 pins out of 8 fitted

#### Specifications (measured at $T_A = 25^\circ\text{C}$ , nominal input voltage full load and after warm up)

Input Voltage Range	$\pm 10\%$ max.	
Voltage set Accuracy	100% Load/nominal Vin	-2% typ. / $\pm 5\%$ max.
Line Regulation	Low Line to High Line @ max. Load	1.2% typ.
Load Regulation	(10% to 100% Load)	10% typ. / 15% max.
Ripple & Noise @ 20MHz BW	68mVp-p typ. / 100mVp-p max.	
Efficiency	100% Load	70% min. / 75% max.
Operating Temperature	$-40^\circ\text{C}$ to $+85^\circ\text{C}$	
Storage Temperature	$-55^\circ\text{C}$ to $+125^\circ\text{C}$	
Isolation Test Voltage	(tested for 1 second)	1000VDC
	(rated for 1 minute***)	500VAC / 60Hz
Isolation Capacitance	75pF max.	
Isolation Resistance	Viso = 500V	10 GΩ min.
Humidity	95% max.	
Operating Frequency	Vin (nom.)	20kHz min. / 70 kHz max.
Short-Circuit Protection	1 Second	
Weight	1.0g	
MTBF	Using MIL-HDBK 217F ( $+90^\circ\text{C}$ )	$172 \times 10^3$ hours
	Using MIL-HDBK 217F ( $+25^\circ\text{C}$ )	$1022 \times 10^3$ hours

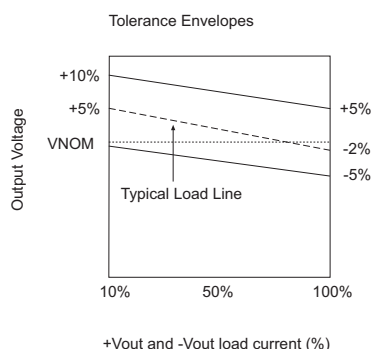
Detailed Information see Application Notes chapter „MTBF“

#### Certification

UL General Safety Report: E358085-A2 UL60950-1

\*\*\*Any data referred to in this datasheet are of indicative nature and based on our practical experience only. For further details, please refer to our Application Notes.

#### Tolerance Envelopes



## ECONOLINE

### DC/DC-Converter

with 3 year Warranty

RECOM

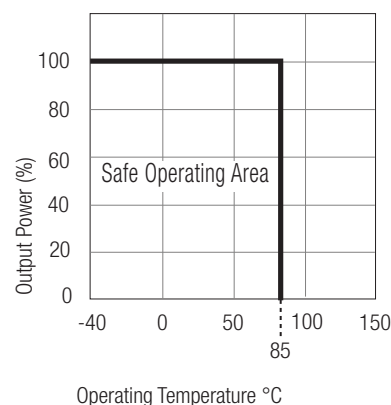
## 1 Watt SMD Isolated Single Output



UL-60950-1 Certified

**R1SE**

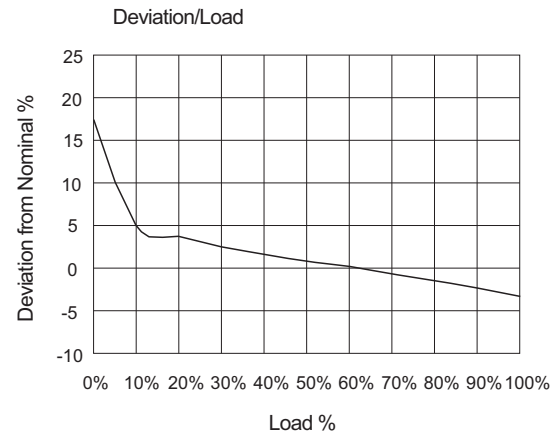
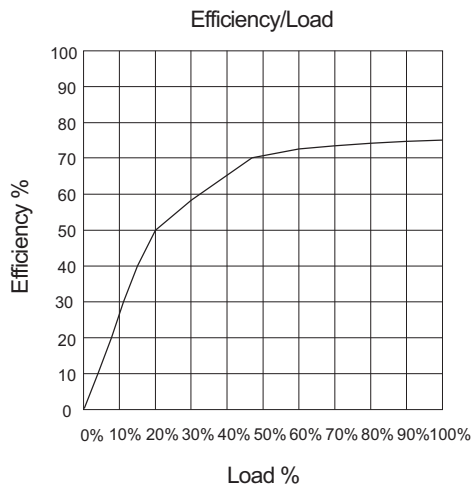
## Derating-Graph (Ambient Temperature)



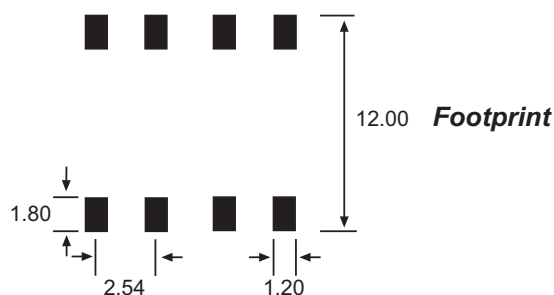
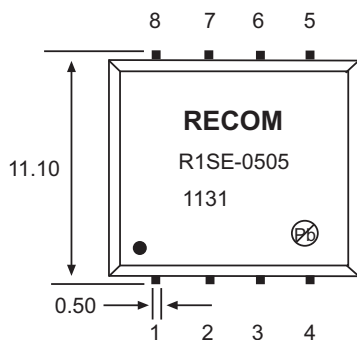
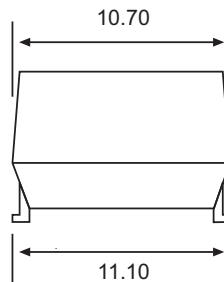
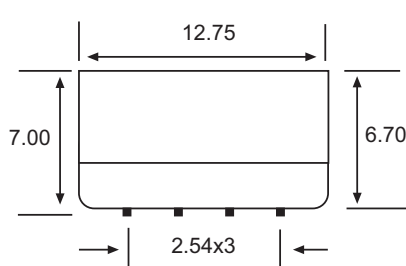
Refer to Application Notes

## Typical Characteristics

### R1SE-0505



## Package Style and Pinning (mm)



### Pin Connections

Pin #	Function for 5 Pins	Function for 8 Pins
1	-Vin	- Vin
2	+Vin	+Vin
4	-Vout	-Vout
5	+Vout	+Vout
3, 6, 7	No Pin	NC
8	NC	NC

NC= No Connection

UNIT: mm  
TOL.:  $\pm 0.25$  mm