

## 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	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°C to + 85°C
Storage Temperature		-55°C to +125°C
Isolation Test Voltage	(tested for 1 second)	1000VDC
	(rated for 1 minute***)	500VAC / 60Hz
Isolation Capacitance		75pF max.
Isolation Resistance	$V_{ISO} = 500\text{V}$	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°C)	$172 \times 10^3$ hours
	Using MIL-HDBK 217F (+25°C)	$1022 \times 10^3$ hours

Detailed Information see Application Notes chapter „MTBF“

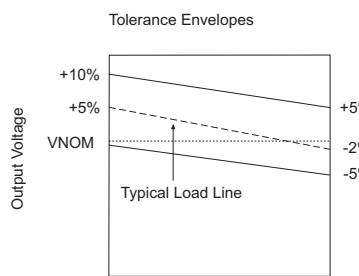
### Certification

UL General Safety

Report: E358085-A2

UL60950-1

### Tolerance Envelopes



+Vout and -Vout load current (%)

## ECONOLINE

DC/DC-Converter

with 3 year Warranty

**RECOM**

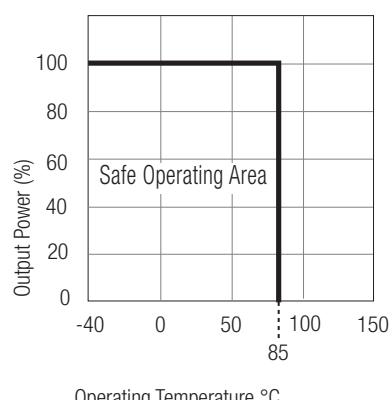
## 1 Watt SMD Isolated Single Output



**UL-60950-1 Certified**

**R1SE**

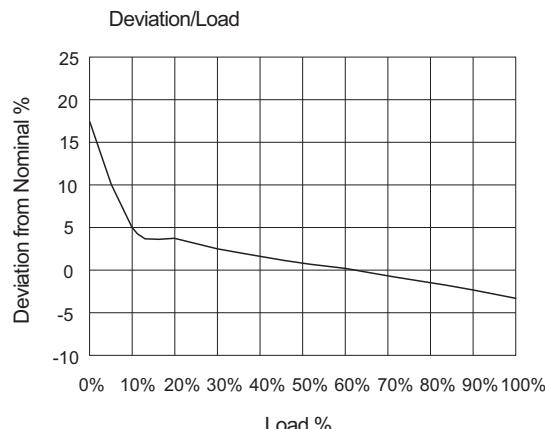
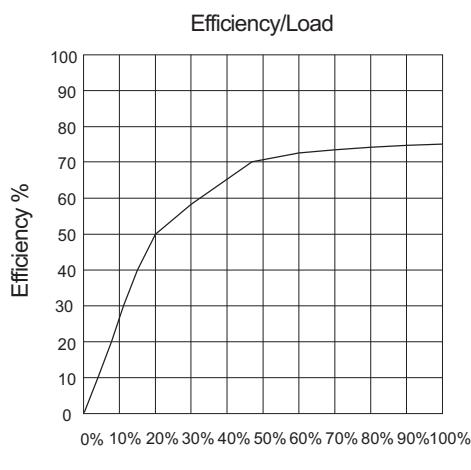
## Derating-Graph (Ambient Temperature)



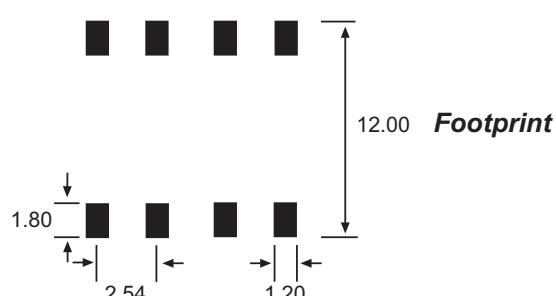
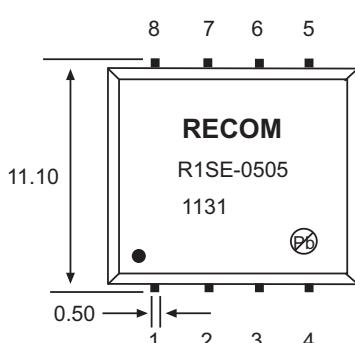
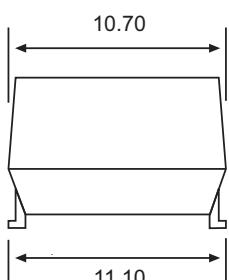
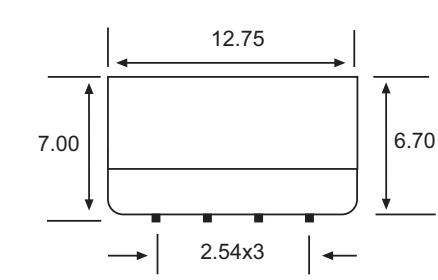
Refer to Application Notes

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

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