

# Features

## Unregulated Converters

- 1:1 Input Range
- Low Cost 1W Converter
- Efficiency to 75%
- -40°C to +85°C Operating Temperature Range
- UL Certified

### Selection Guide

Part Number SMD	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (typ.)
ROE-0505S	5	5	200	75%

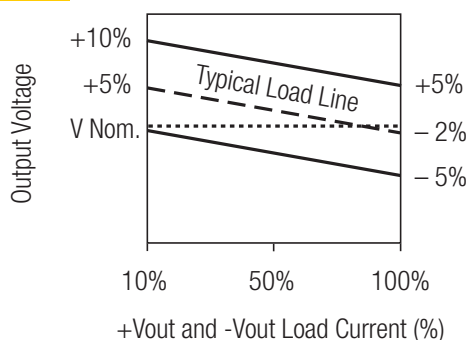
### Specifications (measured at $T_A = 25^\circ\text{C}$ , nominal input voltage, full load and after warm-up)

Input Voltage Range		$\pm 10\%$ max.	
Output Voltage Accuracy		-2% typ., $\pm 5\%$ max.	
Line Voltage Regulation	(low line to high line at max. load)	1.2% typ.	
	20% to 100% load (5V output)	10% max.	
Output Ripple and Noise (20MHz BW limited)		52mVp-p typ. / 100mVp-p max.	
Operating Frequency ( $V_{in}$ =nominal input)		50kHz min. / 82kHz typ. / 105kHz max.	
Efficiency		75% typ. / 70% min.	
Isolation Test Voltage	(tested for 1 second)	1000 VDC min.	
	(rated for 1 minute*)	500VAC / 60Hz	
Isolation Capacitance		75pF max.	
Isolation Resistance	( $V_{iso}=500V$ )	1G $\Omega$ min.	
Short-Circuit Protection		1 sec.	
Operating Temperature Range		-40°C to +85°C	
Storage Temperature		-55°C to +125°C	
Relative Humidity		95% RH	
Package Weight		1.4g	
MTBF (+25°C)	} Detailed Information see Application Notes chapter "MTBF"	using MIL-HDBK 217F	2400 x 10 <sup>3</sup> hours
MTBF (+85°C)		using MIL-HDBK 217F	650 x 10 <sup>3</sup> hours
Certification			
UL General Safety	Report: E358085-A4		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.

### Typical Characteristics

#### Tolerance Envelope



## ECONOLINE

DC/DC-Converter

with 3 year Warranty

# RECOM

## 1 Watt SIP4 Single Output

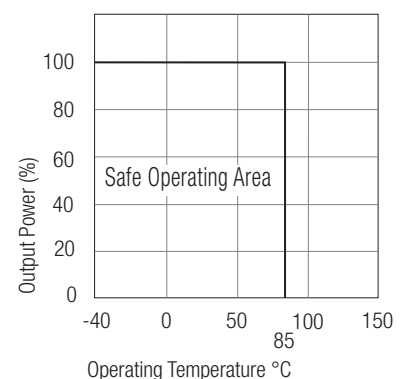


**UL**  
**E-358085**

**UL-60950-1 Certified**

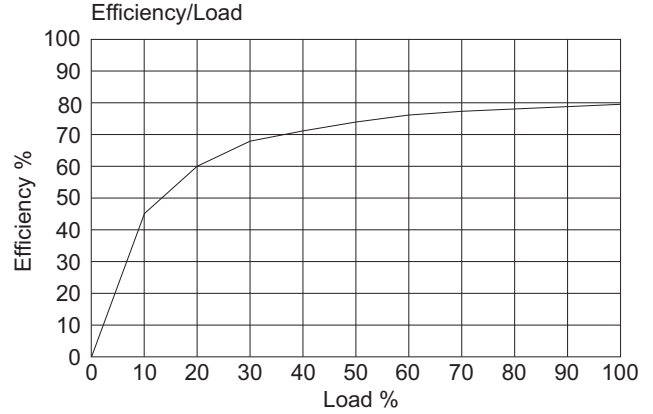
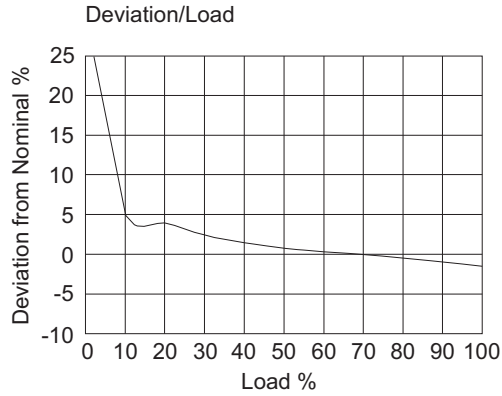
# ROE

## Derating-Graph (Ambient Temperature)



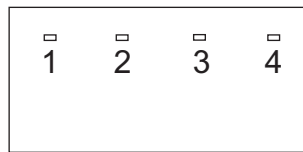
### Typical Characteristics

## ROE-0505S

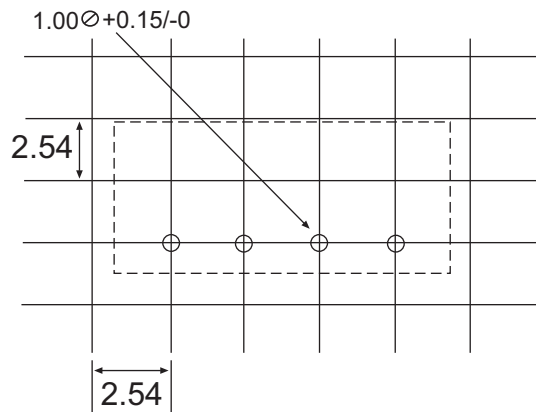
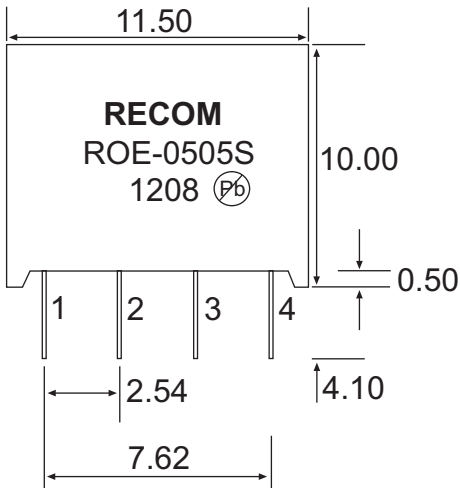


### Package Style and Pinning

#### Single SIP 4PIN Package



BOTTOM VIEW



#### Pin Connections

Pin #	Function
1	-Vin
2	+Vin
3	-Vout
4	+Vout

Unit: mm  
Tolerance:  $\pm 0.25$  mm

ROE