

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%

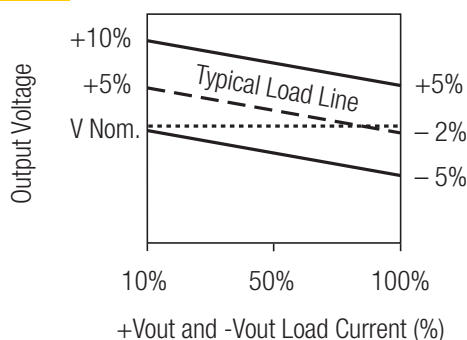
Specifications (measured at $T_A = 25^\circ\text{C}$, nominal input voltage, full load and after warm-up)

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 Ω 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 ³ hours
MTBF (+85°C)		using MIL-HDBK 217F	650 x 10 ³ 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



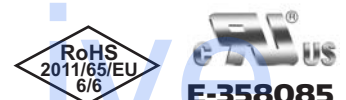
ECONOLINE

DC/DC-Converter

with 3 year Warranty

RECOM

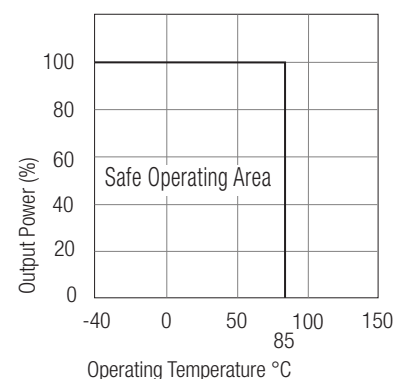
1 Watt SIP4 Single Output



UL-60950-1 Certified

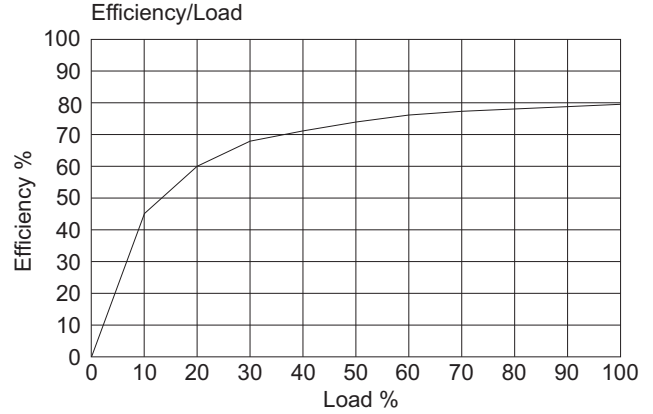
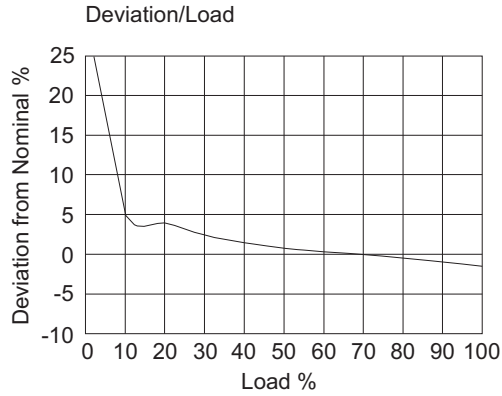
ROE

Derating-Graph (Ambient Temperature)



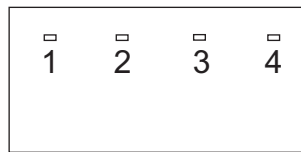
Typical Characteristics

ROE-0505S

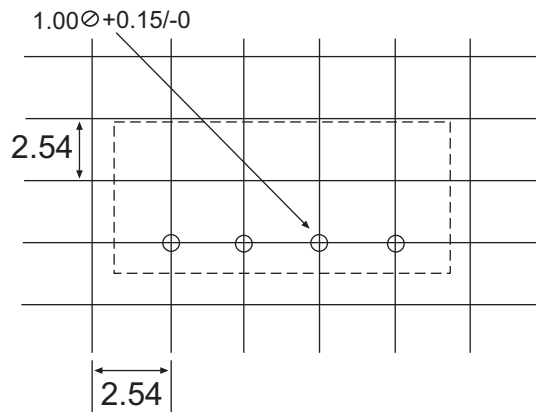
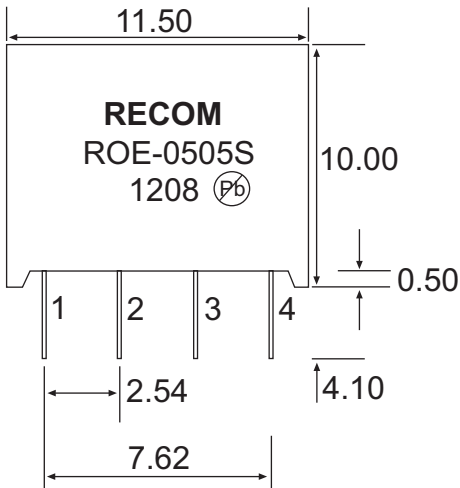


Package Style and Pinning

Single SIP 4PIN Package



BOTTOM VIEW



Pin Connections

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

Unit: mm
Tolerance: ± 0.25 mm

ROE