Features

Unregulated Converters

- 1:1 Input Range
- Low Cost 1W Converter
- Efficiency to 76%
- -40°C to +85°C Operating Temperature Range
- UL Certified

1 Watt SIP7 Single Output

RoHS 2011/65/EU 6/6

c RUus
E-358085

UL-60950-1 Certified

RBE

Selection Guide

Part Number SMD	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (typ.)
RBE-0505S	5	5	200	76%

Specifications (measured at T_A = 25°C, nominal input voltage, full load and after warm-up)

Input Voltage Range		±10% max.
Output Voltage Accuracy		-2% typ., ±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 (Vin=nominal input)		50kHz min. / 82kHz typ. / 105kHz max.
Efficiency		76% 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	(Viso=500V)	1GΩ 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		2.2g
MTBF (+25°C)	using MIL-HDBK 217F	2400 x 10³ hours
MTBF (+85°C)	using MIL-HDBK 217F	650 x 10³ hours
Certification		
UL General Safety	Report: E358085-A4	UL60950-1

Detailed Information see Application Notes chapter "MTBF"

*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

Derating-Graph
(Ambient Temperature)
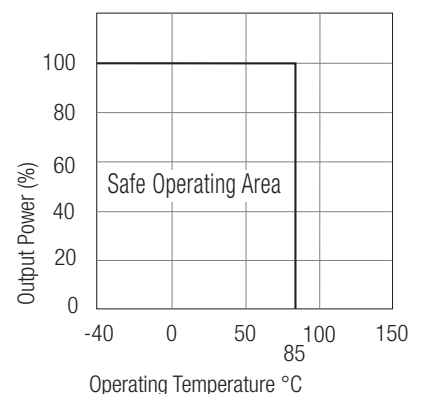
Refer to Application Notes

Typical Characteristics

RBE-0505S

Efficiency/Load

Deviation/Load
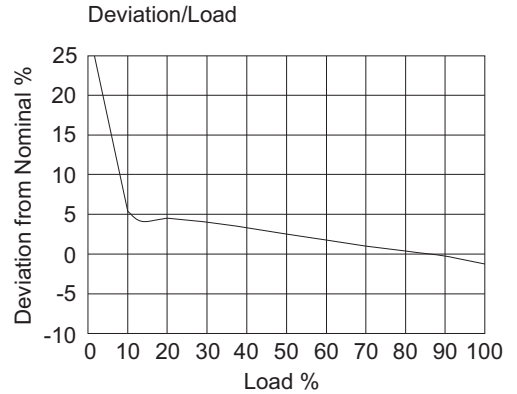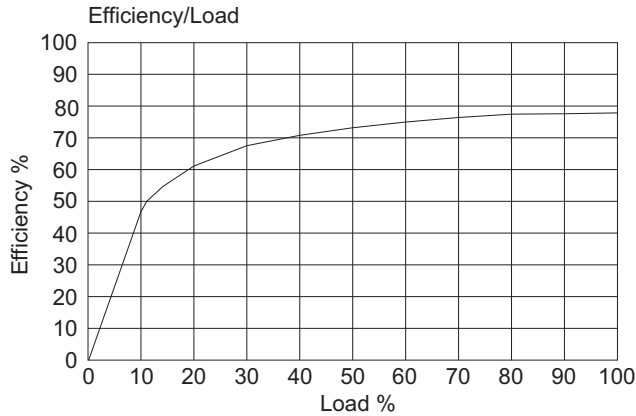
Package Style and Pinning

Single SIP 7PIN Package

Top View

2.54

2.54

Footprint   1.00⌀ +0.15/-0

6.00

19.60

RECOM
RBE-0505S
1208 Ⓟ⑥

| 1 | 2 | | 4 | 5 | 6 |

2.54

12.70

10.20

0.51

4.10
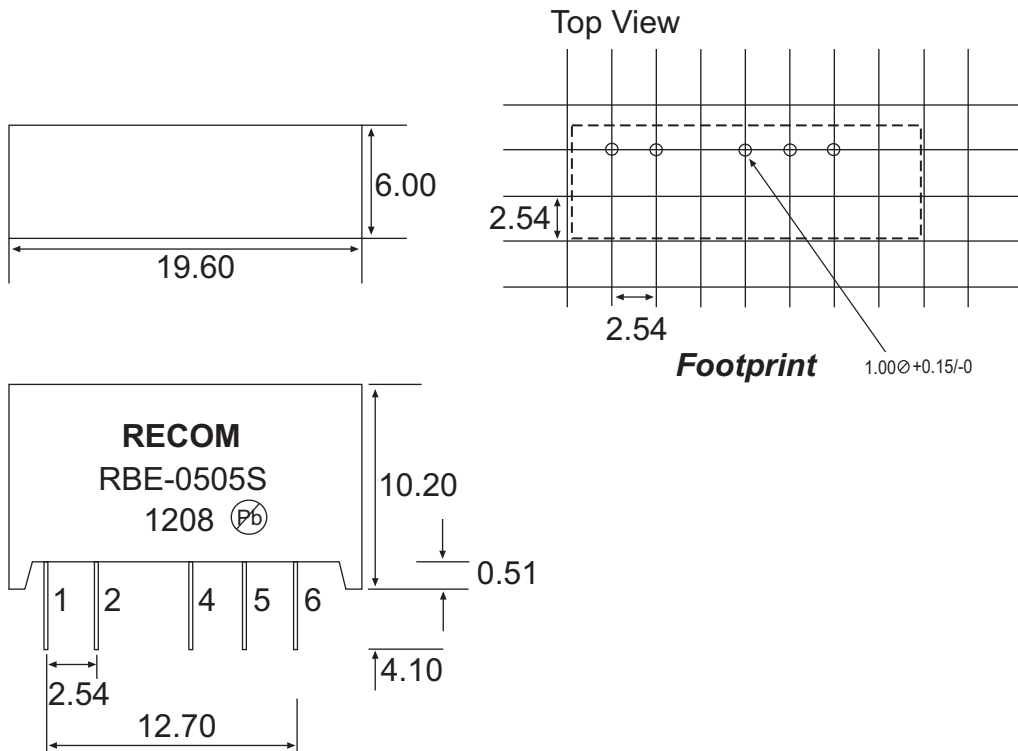
Pin Connections

Pin #	Function
1	+Vin
2	-Vin
4	NC
5	-Vout
6	+Vout

NC = No Connection

Unit: mm
Tolerance: ± 0.25 mm