Features

Unregulated Converters

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

ECONOLINE
DC/DC-Converter
with 3 year Warranty

RECOM

1 Watt SIP7 Single Output

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) ⎫ _Detailed Information see_	using MIL-HDBK 217F	2400 x 10³ hours
MTBF (+85°C) ⎭ _Application Notes chapter "MTBF"_	using MIL-HDBK 217F	650 x 10³ 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.

RoHS 2011/65/EU 6/6

c[UL]us **E-358085**

UL-60950-1 Certified

RBE

Derating-Graph
(Ambient Temperature)

Typical Characteristics

Tolerance Envelope

Output Voltage

+10%
+5% Typical Load Line +5%
V Nom. — 2%
— 5%

10%   50%   100%

+Vout and -Vout Load Current (%)

Output Power (%)

100
80
60 Safe Operating Area
40
20
0

-40   0   50   100   150
85

Operating Temperature °C
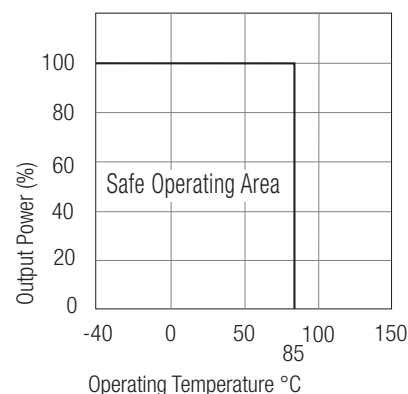
Refer to Application Notes

Typical Characteristics

RBE-0505S

Efficiency/Load

Deviation/Load
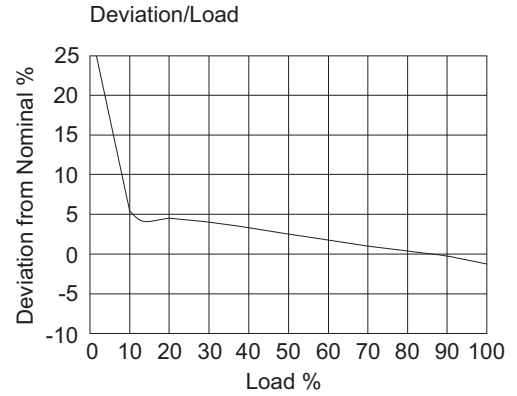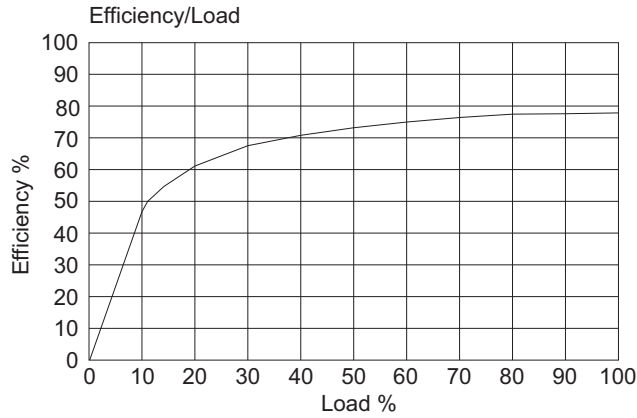
Package Style and Pinning

Single SIP 7PIN Package

Top View

6.00

19.60

2.54

2.54

Footprint   1.00⌀ +0.15/-0

RECOM
RBE-0505S
1208 Pb

1 2   4 5 6

2.54

12.70

10.20

0.51

4.10
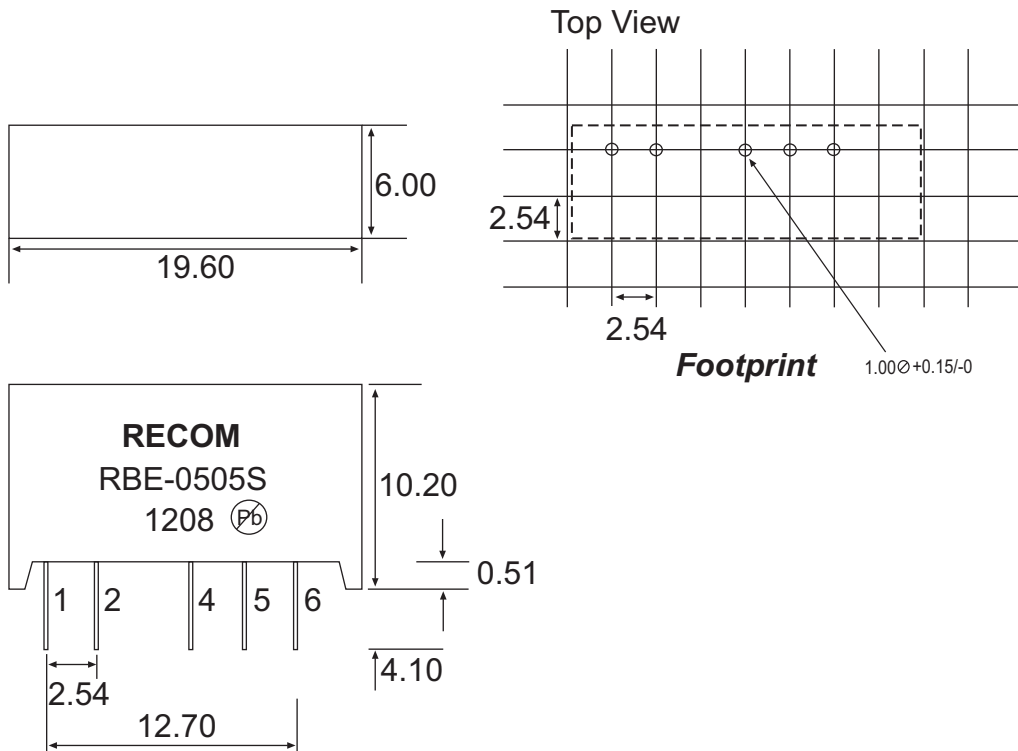
Pin Connections

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

NC = No Connection

Unit: mm
Tolerance: ± 0.25 mm

RBE