

# Features

## Unregulated Converter

- 1 : 1 Input Range
- SMD Package
- Efficiency up to 75%
- 1kVDC Isolation
- Operating Temperature from -40°C to +85°C

# ECONOLINE

DC/DC-Converter

with 3 year Warranty



## 1 Watt SMD Isolated Single Output

### Selection Guide

| Part Number SMD | Input Voltage (VDC) | Output Voltage (VDC) | Output Current (mA) | Efficiency typ. (%) |
|-----------------|---------------------|----------------------|---------------------|---------------------|
| R1SE-0505       | 5                   | 5                    | 200                 | 75                  |

R1SE\*-0505: 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                      |
| Isolation Capacitance                        |                                   | 75pF max.                    |
| Isolation Resistance                         | Viso = 500V                       | 10 G $\Omega$ min.           |
| Humidity                                     |                                   | 95% max.                     |
| Operating Frequency                          | Vin (nom.)                        | 20kHz min. / 70 kHz max.     |
| Short-Circuit Protection                     |                                   | 1 Second                     |
| MTBF   | Using MIL-HDBK 217F (+90°C)       | 172 x 10 <sup>3</sup> hours  |
|  | Using MIL-HDBK 217F (+25°C)       | 1022 x 10 <sup>3</sup> hours |

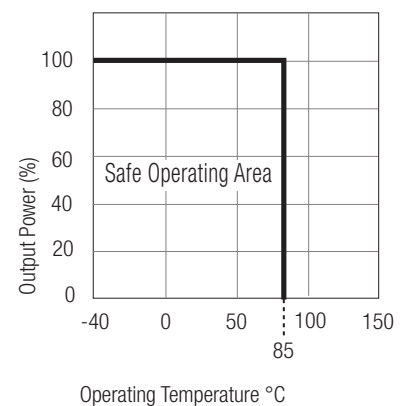
Detailed Information see Application Notes chapter „MTBF“

|        |      |
|--------|------|
| Weight | 1.0g |
|--------|------|

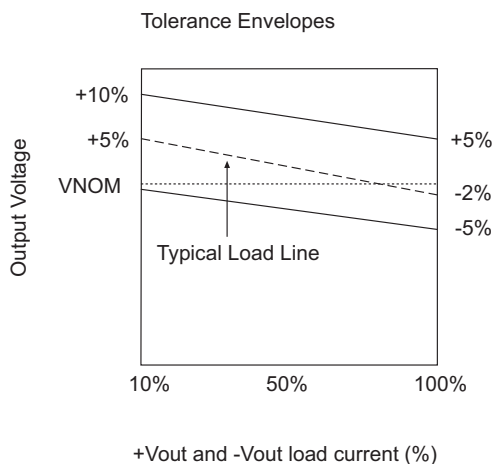


# R1SE

## Derating-Graph (Ambient Temperature)



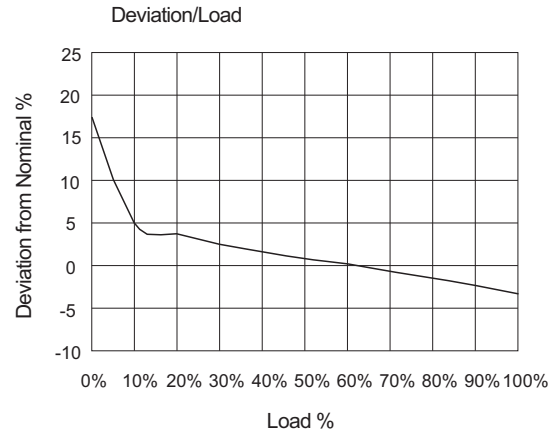
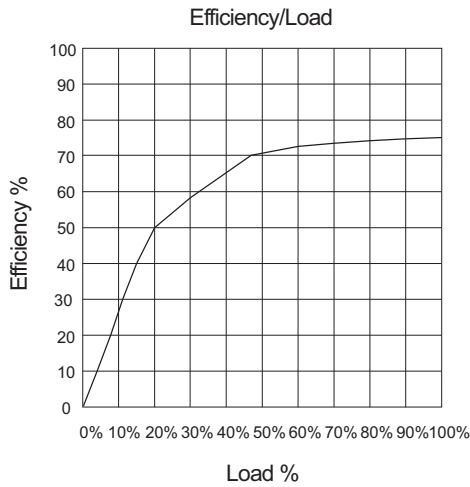
### Typical Characteristics



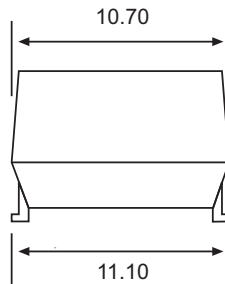
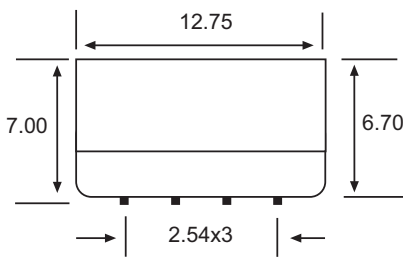
Refer to Application Notes

### 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 | NA                  | NC                  |
| 8       | NC                  | NC                  |

NC= No Connection

NA= No Available Electrical Connection

UNIT: mm

TOL.: ± 0.25 mm

