**Features**

- 1:1 Input Range
- Efficiency up to 84%
- 2kVDC and 3kVDC Isolation Option
- Approved for Medical Applications
- -40°C to +90°C Operating Temperature Range
- 2W SMD Package

**Unregulated Converters**

- **Selection Guide**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Isolation Voltage</th>
<th>Input Voltage</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Efficiency (max.)</th>
<th>Capacitive Load (max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTM-0505S*</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>400</td>
<td>79%</td>
<td>2200µF</td>
</tr>
<tr>
<td>RTM-1205S*</td>
<td>2</td>
<td>12</td>
<td>5</td>
<td>400</td>
<td>83%</td>
<td>2200µF</td>
</tr>
<tr>
<td>RTM-2405S*</td>
<td>2</td>
<td>24</td>
<td>5</td>
<td>400</td>
<td>84%</td>
<td>2200µF</td>
</tr>
</tbody>
</table>

* add Suffix "/H" for 3kVDC/1sec. Isolation e.g. RTM-0505S/H
* add Suffix "/R" for tape&reel packing e.g. RTM-1205S-R or RTM-2405S/H-R

**Specifications** (measured at TA = 25°C, nominal input voltage and rated output current unless otherwise specified)

- Input Voltage Range ±10% max.
- Output Voltage Accuracy -1% typ., ±5% max.
- Line Voltage Regulation (low line to high line at max. load) 1.2% typ.
- Load Voltage Regulation (10% to 100% full load) 10% typ., 15% max.
- Output Ripple and Noise (20MHz BW limited) 50mVp-p typ., 100mVp-p max.
- Operating Frequency (Vin=nominal input) 20kHz min. / 40kHz typ. / 80kHz max.
- Efficiency at Full Load see Selection Guide

**Minimum Load 0%**

- Specifications valid for 10% minimum load only

- Isolation Voltage
  - RTM-xx05S (tested for 1 second) 2000 VDC
  - RTM-xx05S/H (tested for 1 second) 3000 VDC

- Isolation Capacitance 30pF typ., 50pF max.
- Isolation Resistance (Viso=500V) 15Ω min.
- Short-Circuit Protection 1 second
- Operating Temperature Range with Derating -40°C to +90°C
- Storage Temperature -55°C to +125°C
- Reflow Temperature RoHS compliant 245°C (30 sec.), Peak 255°C (5sec.) max.
- Vapour Phase Process (for more details see Application Notes) 230°C (90 sec.) max.
- Relative Humidity 95% RH
- Package Weight 1.4g
- Packing Quantity All Types 27 pcs per Tube
  All Types 500 pcs per Reel

**MTBF (+25°C)**

- Detailed Information see Application Notes chapter "MTBF" using MIL-HDBK 217F 3907 x 10^6 hours

**MTBF (+85°C)**

- Using MIL-HDBK 217F 313 x 10^6 hours

**Certifications**

- EN Medical Safety EN60601-1
- EN General Safety EN60950-1, 2nd Edition

**Note 1:** Maximum capacitive load is defined as the capacitive load that will allow start up in under 1 second without damage to the converter.

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**2 Watt SMD Single Output**

**Features**

- 1:1 Input Range
- Efficiency up to 84%
- 2kVDC and 3kVDC Isolation Option
- Approved for Medical Applications
- -40°C to +90°C Operating Temperature Range
- 2W SMD Package

**ECONOLINE**

**DC/DC-Converter**

**EN-60601-1 Certified**

**EN-60950-1 Certified**

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**Refer to Application Notes**

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**Derating-Graph**

(Ambient Temperature)

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**RTM**

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**REV: 0/2012**

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**www.recom-electronic.com**
**ECONOLINE**
DC/DC-Converter

**Typical Characteristics**

**Tolerance Envelope**

**RTM-xx05S**

**Package Style and Pinning**

**EMC Filtering - Suggestion for EN55022 Class B**