

## Features

### Regulated Converters

- 1kVDC & 2kVDC Isolation
- UL94V-0 Package Material
- No Heatsink Required
- No Extern. Components Required
- Toroidal Magnetics
- Short Circuit Protection – Continuous (for „P-Suffix“ part numbers only)

**ECONOLINE**

DC/DC-Converter

# RSZ/P Series

### Selection Guide

Part Number		Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)
RSZ-xxxx	(H)	3.3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	Depending on Output Voltage
<b>Standard</b>				
<b>With Short Circuit Protection</b>				
RSZ-xx03P	(H)	3.3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28	3	200
RSZ-xx3.3P	(H)	3.3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28	3.3	200
RSZ-xx4.85P	(H)	3.3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28	4.85	200
RSZ-xx05P	(H)	3.3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28	5	200

xx = Input Voltage

Ordering Example: RSZ-0514 (5VDC Input, 14VDC Output)

RSZ-244.85P (with Short Circuit Protection, 24VDC Input, 4.85VDC Output)

### Specifications (Core Operating Area)

Input Voltage Range		±5%
Output Voltage Accuracy		±2%
Line Voltage Regulation		1% max.
Load Voltage Regulation		1% max.
Output Ripple and Noise (at 20MHz BW)		100mVp-p max.
Operating Frequency		20kHz min. / 50kHz typ. / 85kHz max.
Efficiency at Full Load		50% min. / 60% typ.
No Load Power Consumption		134mW min. / 217mW typ. / 350mW max.
Isolation Voltage	(tested for 1 second)	1.000VDC min.
Rated Working Voltage	(long term isolation)	see Application Notes
Isolation Voltage	H-Suffix (tested for 1 second)	2.000VDC min.
Rated Working Voltage	H-Suffix (long term isolation)	see Application Notes
Isolation Capacitance		70pF typ.
Isolation Resistance		10 GΩ min.
Short Circuit Protection		1 Second
P-Suffix		Continuous
Operating Temperature Range (free air)		-40°C to +70°C (see Graph)
Storage Temperature Range		-55°C to +125°C
Reflow Temperature	ROHS compliant (for more details see Application Notes)	245°C (30 sec) max.
Relative Humidity	MSL Level 1	95% RH

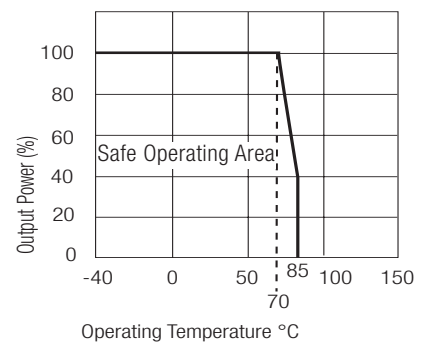
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## 1 Watt SMD Miniature Isolated Single Output



**RECOM**

## Derating-Graph (Ambient Temperature)

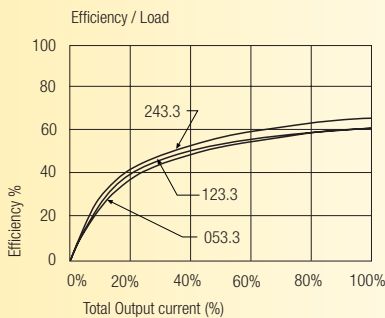


**Specifications (Core Operating Area)**

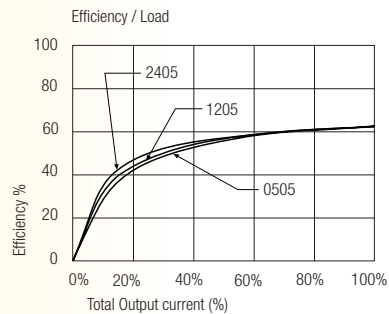
Package Weight	2.7g		
P-Suffix	2.6g		
MTBF (+25°C)	Detailed Information see Application Notes chapter "MTBF"	using MIL-HDBK 217F	1210 x 10 <sup>3</sup> hours
(+70°C)		using MIL-HDBK 217F	149 x 10 <sup>3</sup> hours

**Typical Characteristics**

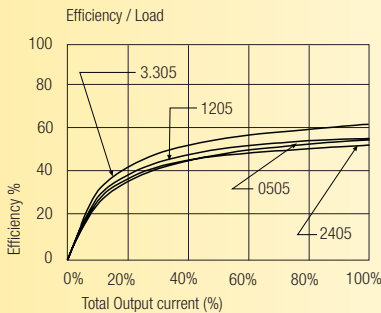
**RSZ-xx3.3P**



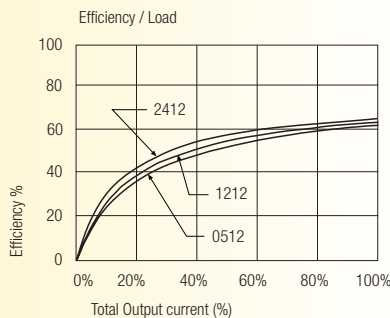
**RSZ-xx05P**



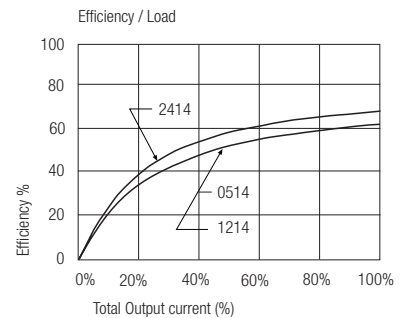
**RSZ-xx05**



**RSZ-xx12**



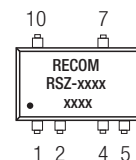
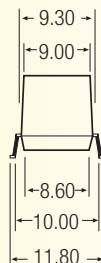
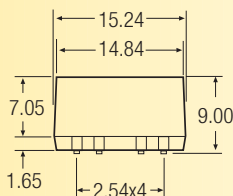
**RSZ-xx14**



**Package Style and Pinning (mm)**

**10 PIN Single SMD Package**

3rd angle projection



**Pin Connections**

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

NC= No Connection  
XX.X ± 0.5 mm  
XX.XX ± 0.25 mm

**Recommended Footprint Details**

