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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Features

Regulated Converters

- 1kVDC & 2kVDC Isolation
- UL94V-0 Package Material
- No Heatsink Required
- No External Components Required
- Toroidal Magnetics
- Optional Continuous Short Circuit Protected

Description

The RSZ series DC/DC converter has been designed for isolating or converting DC power rails where an SMD format with regulated output is required, although it is no larger than a standard unregulated SMD converter.

Selection Guide

Part Number SMD	2kVDC	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Max Capacitive Load ⁽¹⁾
Regulated without short circuit protection					
RSZ-xx05	(H)	3.3, 5, 12, 15, 24	5	200	1200µF
RSZ-xx09	(H)	3.3, 5, 12, 15, 24	9	111	1200µF
RSZ-xx12	(H)	3.3, 5, 12, 15, 24	12	42	680µF
Regulated with short circuit protection					
RSZ-xx3.3/P	(H)	3.3, 5, 12, 15, 24	3.3	200	3300µF
RSZ-xx05/P	(H)	3.3, 5, 12, 15, 24	5	200	1200µF

xx= Input Voltage (other input and output voltage combinations available on request add suffix -R for tape & reel packing e.g. RSZ-0505-R)

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

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.
Minimum Load		0%
No Load Power Consumption		134mW min. / 217mW typ. / 350mW max.
Isolation Voltage		(tested for 1 second) 1000VDC (rated for 1 minute) 500VAC / 60Hz
Isolation Voltage	H-Suffix H-Suffix	(tested for 1 second) 2000VDC (rated for 1 minute) 1000VAC / 60Hz
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	245°C (30 sec) max.
Vapour Phase Process		230°C (90 sec) max. (for more details see Application Notes)
Relative Humidity		95% RH
Package Weight		2.7g
P-Suffix		2.6g
Packing Quantity		33 pcs per tube 500 pcs per Reel
MTBF (+25°C)	} For detailed information see Application Notes chapter "MTBF"	RSZ types 1210 x 10 ³ hours
		RSZ/P types 1688 x 10 ³ hours
(+70°C)		RSZ types 149 x 10 ³ hours
using MIL-HDBK 217F		RSZ/P types 418 x 10 ³ hours

ECONOLINE

DC/DC-Converter

with 3 year Warranty



1 Watt SMD Miniature Isolated Single Output



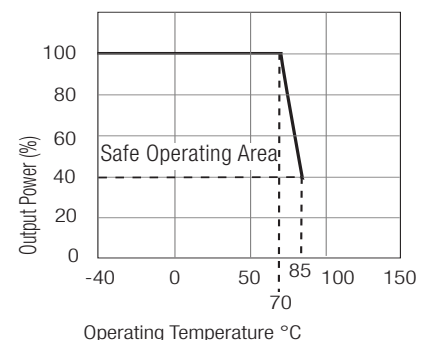
EN-60950-1 Certified

RSZ

EOL Dec.2011

END OF LIFE: Please do not use for new design, replace with new SMD converter R1Z.

Derating-Graph (Ambient Temperature)



Refer to Application Notes

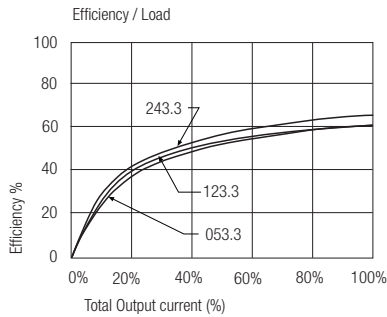
ECONOLINE

DC/DC-Converter

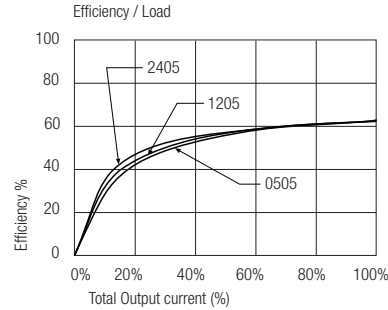
RSZ/P Series

Typical Characteristics

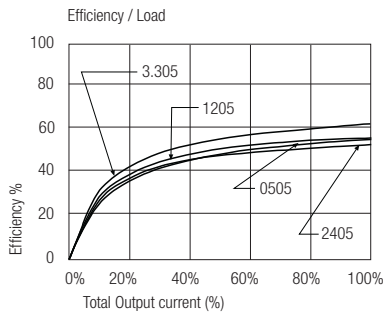
RSZ-xx3.3/P



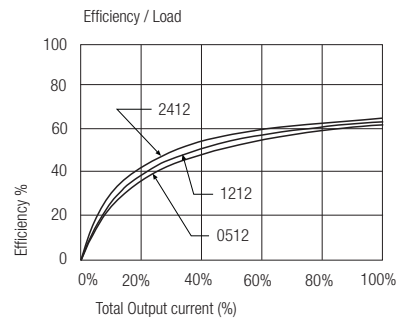
RSZ-xx05/P



RSZ-xx05



RSZ-xx12



Notes

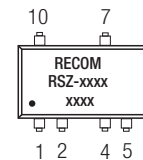
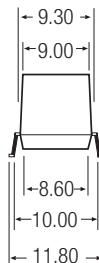
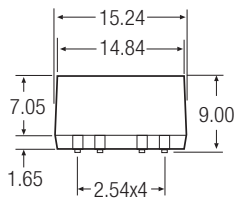
Note 1 Maximum capacitive load is defined as the capacitive load that will allow start up in under 1 second without damage to the converter

Package Style and Pinning (mm)

Ordering Example: RSZ-0505 (5V Input, 5V Output, not short circuit protected)
 RSZ-0505/HP (5V Input, 5V Output, 2kVDC Isolation and short circuit protection)



10 PIN Single SMD Package



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

