

Features

Regulated Converters

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

Selection Guide

Part Number		Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)
SMD	2kVDC	(VDC)	(VDC)	(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
Standard				
With Short Circuit Protection				
RSZ-xx03/P	(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-xx3.3/P	(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-xx4.85/P	(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-xx05/P	(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-244.8/HP (with 24VDC input, 4.85VDC Output, 2kVDC Isolation and Continuous Short Circuit Protection)

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)	1000VDC min.
Rated Working Voltage	(long term isolation)	see Application Notes
Isolation Voltage	H-Suffix (tested for 1 second)	2000VDC 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)	
Relative Humidity	95% RH	

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ECONOLINE

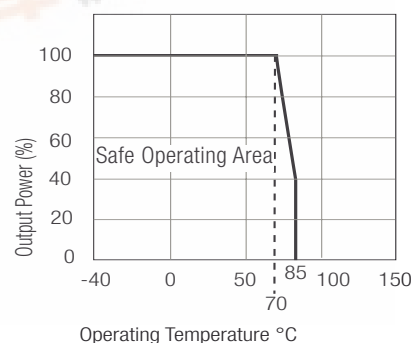
DC/DC-Converter

RSZ/P Series

1 Watt
SMD Miniature
Isolated
Single Output



Derating-Graph (Ambient Temperature)

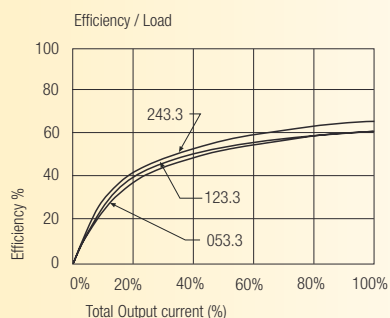


Specifications (Core Operating Area)

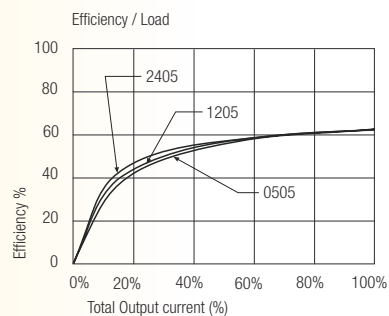
Package Weight	2.7g
P-Suffix	2.6g
MTBF (+25°C)	using MIL-HDBK 217F RSZ types 1210 x 10 ³ hours
	Detailed Information see RSZ/P types 1688 x 10 ³ hours
(+70°C)	Application Notes chapter "MTBF" using MIL-HDBK 217F RSZ types 149 x 10 ³ hours
	RSZ/P types 418 x 10 ³ hours

Typical Characteristics

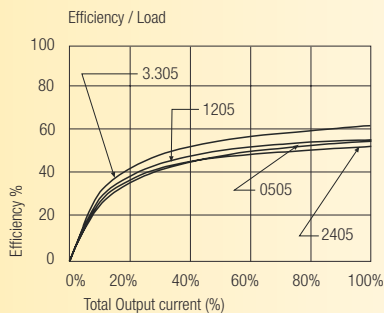
RSZ-xx3.3/P



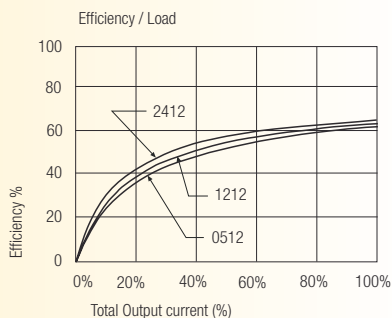
RSZ-xx05/P



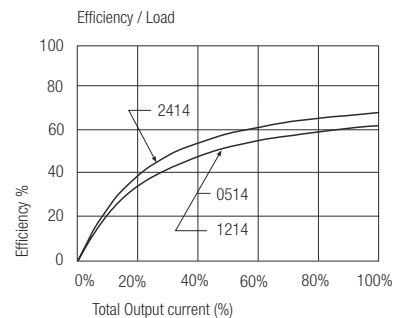
RSZ-xx05



RSZ-xx12

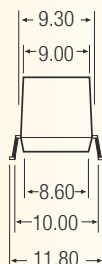
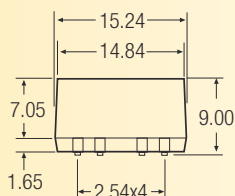


RSZ-xx14

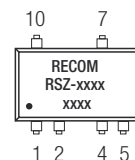


Package Style and Pinning (mm)

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

