

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)
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)	245°C (30 sec) max.
Relative Humidity		95% RH

continued on next page

ECONOLINE

DC/DC-Converter

RSZ/P Series

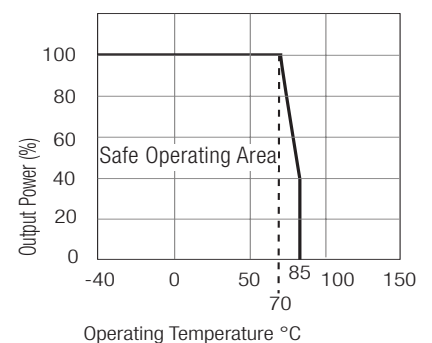
1 Watt SMD Miniature Isolated Single Output



** add suffix -R for tape&reel packing e.g. RSZ-0505-R. For more details and dimensions of the tapes and reels see page 334 to 336.

RECOM

Derating-Graph (Ambient Temperature)

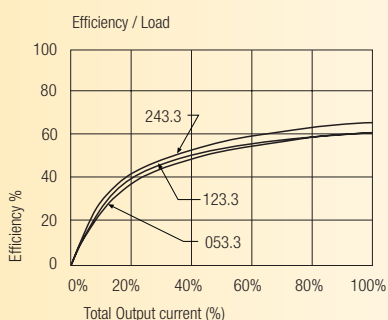


Specifications (Core Operating Area)

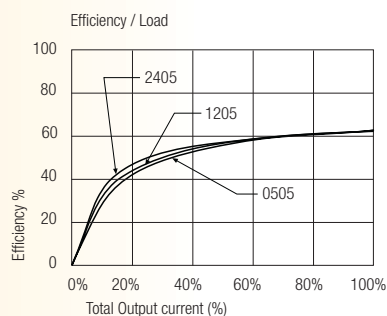
Package Weight		2.7g	
P-Suffix		2.6g	
MTBF (+25°C)	} Detailed Information see Application Notes chapter "MTBF"	using MIL-HDBK 217F RSZ types	1210 x 10 ³ hours
		using MIL-HDBK 217F RSZ/P types	1688 x 10 ³ hours
(+70°C)	}	using MIL-HDBK 217F RSZ types	149 x 10 ³ hours
		using MIL-HDBK 217F RSZ/P types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

Typical Characteristics

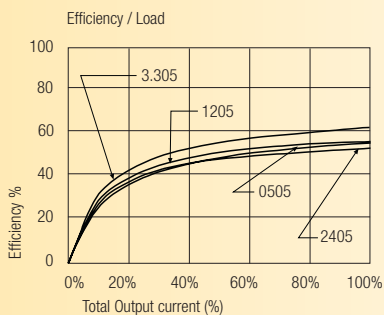
RSZ-xx3.3/P



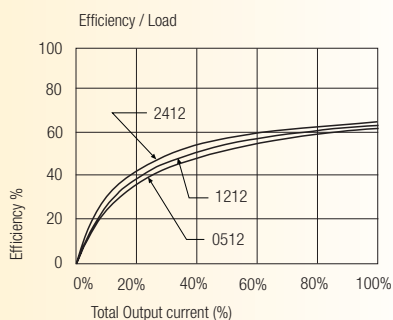
RSZ-xx05/P



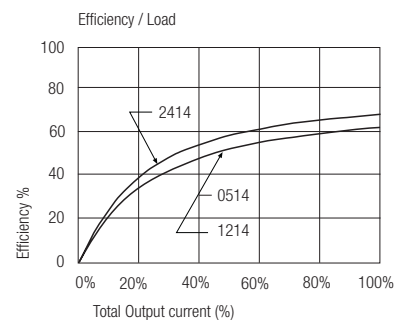
RSZ-xx05



RSZ-xx12

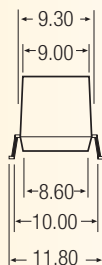
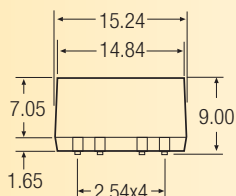


RSZ-xx14

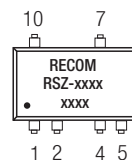


Package Style and Pinning (mm)

10 PIN Single SMD Package



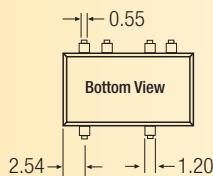
3rd angle projection



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

