

Features

Regulated Converters

- 1kVDC Isolation
- SMD Package Styles
- 5V, 12V and 15V Output
- UL94V-0 Package Material
- No Heatsink Required
- No External Components
- Optional Continuous Short Circuit Protected
- Efficiency to 62%

ECONOLINE

DC/DC-Converter

RZ Series

0.5 Watt SMD Isolated Single Output



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

Selection Guide

Part Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)
SMD	(VDC)	(VDC)	(mA)	(%)
RZ-xx05S	5, 9, 12, 15, 24	5	100	50
RZ-xx12S	5, 9, 12, 15, 24	12	42	60
RZ-xx15S	5, 9, 12, 15, 24	15	33	62

xx = Input Voltage

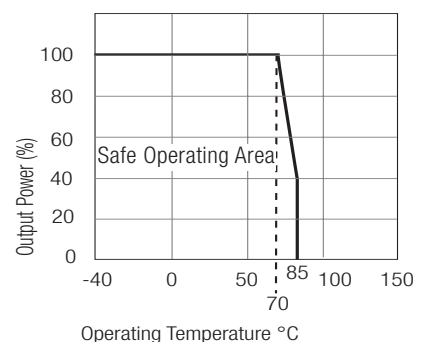
* add Suffix "P" for Continuous Short Circuit Protection, e.g. RZ-0505S/P

Specifications (Core Operating Area)

Input Voltage Range		±5%	
Output Voltage Accuracy		±5%	
Line Voltage Regulation		1% max.	
Load Voltage Regulation (10% to 100% full load)		1% max.	
Output Ripple and Noise (20MHz limited)		100mVp-p max.	
Operating Frequency		50kHz min. / 100kHz typ. / 105kHz max.	
Efficiency at Full Load		50% min. / 60% typ.	
No Load Power Consumption		127mW min. / 155mW typ. / 194mW max.	
Isolation Voltage	(tested for 1 second)	1000VDC min.	
Rated Working Voltage	(long term isolation)	see Application Notes	
Isolation Capacitance		25pF min. / 75pF max.	
Isolation Resistance		10 GΩ min.	
Short Circuit Protection		1 Second	
P-Suffix		Continuous	
Operating Temperature Range (free air convection)		-40°C to +70°C (see Graph)	
Storage Temperature Range		-55°C to +125°C	
Reflow Temperature	ROHS compliant	245°C (30 sec) max. (for more details see Application Notes)	
Relative Humidity		95% RH	
Package Weight		1.9g	
MTBF (+25°C)	} Detailed Information see Application Notes chapter "MTBF"	using MIL-HDBK 217F	1632 x 10 ³ hours
(+70°C)		using MIL-HDBK 217F	156 x 10 ³ hours

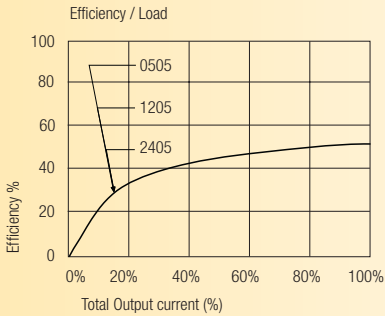


Derating-Graph (Ambient Temperature)

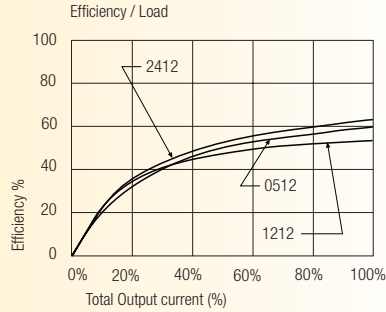


Typical Characteristics

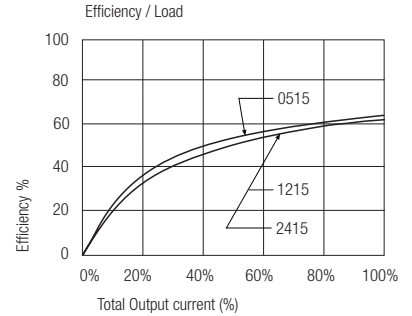
RZ-xx05S



RZ-xx12S

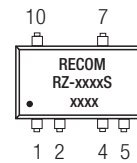
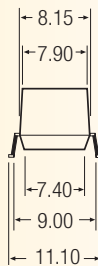
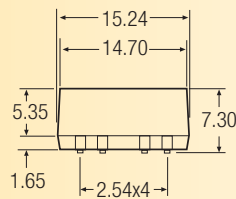


RZ-xx15S



Package Style and Pinning (mm)

10 PIN SMD Package



Pin Connections

Pin #	Single
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

