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



Selection Guide

Part Number SMD	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)
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

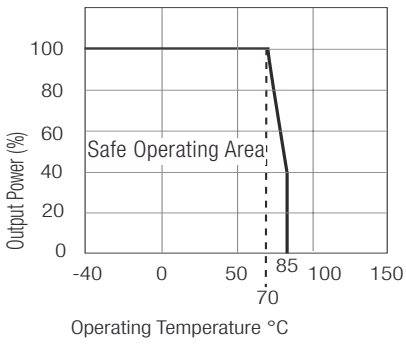
xx = Input Voltage
* add Suffix "P" for Continuous Short Circuit Protection, e.g. RZ-0505S/P

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

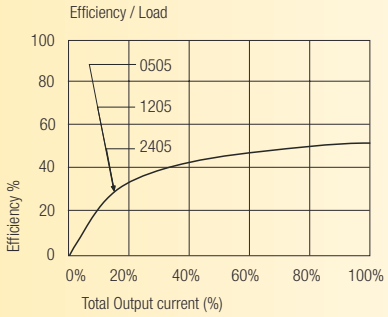
RECOM

Derating-Graph
(Ambient Temperature)

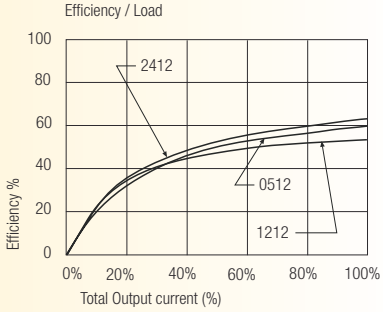


Typical Characteristics

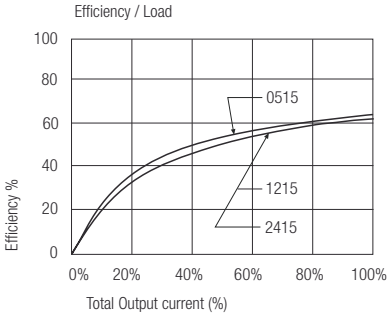
RZ-xx05S



RZ-xx12S



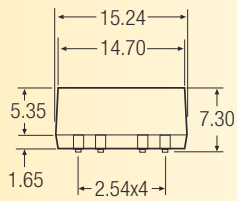
RZ-xx15S

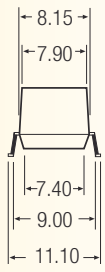


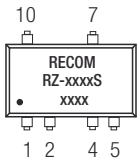
Package Style and Pinning (mm)

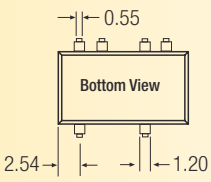
10 PIN SMD Package

3rd angle projection

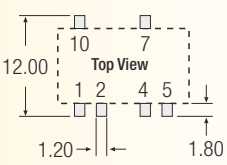








Recommended Footprint Details



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