

Features

Unregulated Converters

- 2W Single and Dual Outputs in DIP 14
- 3kVDC and 4kVDC Isolation
- Optional Continuous Short Circuit Protected
- Custom Solutions Available
- UL94V-0 Package Material
- Efficiency up to 85%

ECONOLINE

DC/DC-Converter

RJZ & RGZ Series

Selection Guide

Part Number		Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)
DIP 14	4kV	(VDC)	(VDC)	(mA)	(%)
RJZ-xx3.3S	(H)	3,3,5,9,12,15,24	3.3	606	70-75
RJZ-xx05S	(H)	3,3,5,9,12,15,24	5	400	78-85
RJZ-xx09S	(H)	3,3,5,9,12,15,24	9	222	78-84
RJZ-xx12S	(H)	3,3,5,9,12,15,24	12	166	80-85
RJZ-xx15S	(H)	3,3,5,9,12,15,24	15	133	82-85
RJZ-xx24S	(H)	3,3,5,9,12,15,24	24	83	80-85
RGZ-xx3.3D	(H)	3,3,5,9,12,15,24	±3.3	±303	75
RGZ-xx05D	(H)	3,3,5,9,12,15,24	±5	±200	75-82
RGZ-xx09D	(H)	3,3,5,9,12,15,24	±9	±111	75-80
RGZ-xx12D	(H)	3,3,5,9,12,15,24	±12	±84	78-82
RGZ-xx15D	(H)	3,3,5,9,12,15,24	±15	±66	80-84
RGZ-xx24D	(H)	3,3,5,9,12,15,24	±24	±42	82-84

xx = Input Voltage

* add Suffix "P" for Continuous Short Circuit Protection, e.g. RGZ-0524D/P, e.g. RGZ-0524D/HP, has 4kV Isolation and is Short Circuit Protected.

2 Watt DIP14 Single & Dual Output



EN-60950-1 Certified
EN-60601-1 Certified

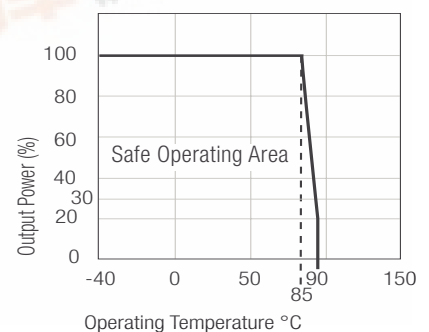
RECOM

Specifications (Core Operating Area)

Input Voltage Range	±10%
Output Voltage Accuracy	±5%
Line Voltage Regulation	1.2%/1% of Vin typ.
Load Voltage Regulation (10% to 100% full load)	3.3V Types ±20% max. 5V Types ±15% max. All other Types ±10% max.
Output Ripple and Noise (20MHz limited)	±150mVp-p max.
Temperature Coefficient	0.02%/°C max.
Operating Frequency	20kHz min./ 50kHz typ. / 90kHz max.
Efficiency at Full Load	70% min. / 80% typ.
Isolation Voltage (H-Suffix)	(tested for 1 second) 3000VDC min. (tested for 1 second) 4000VDC min.
Rated Working Voltage	(long term isolation) see Application Notes
Isolation Capacitance	120pF max.
Isolation Resistance	15GΩ min.
Short Circuit Protection P-Suffix	1 Second Continuous
Operating Temperature Range (free air convection)	-40°C to +85°C (see Graph)
Storage Temperature Range	-55°C to +125°C
Relative Humidity	95% RH
Package Weight	2.8g

continued on next page

Derating-Graph (Ambient Temperature)

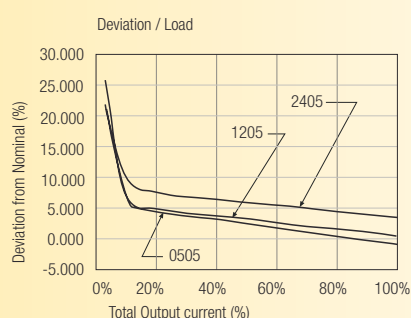
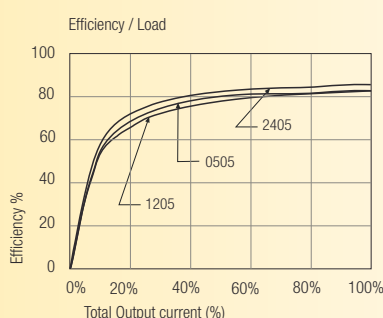


Typical Characteristics

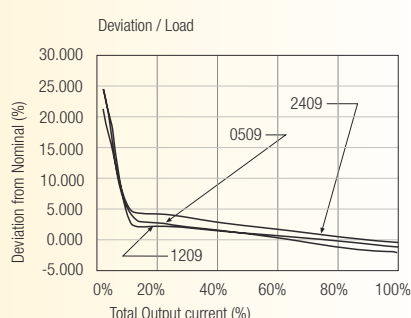
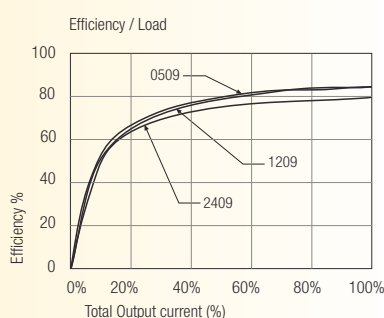
MTBF (+25°C)	using MIL-HDBK 217F Detailed Information see Application Notes chapter "MTBF"	RJZ types	893 x 10 ³ hours
		RGZ types	810 x 10 ³ hours
(+85°C)	using MIL-HDBK 217F	RJZ types	208 x 10 ³ hours
		RGZ types	151 x 10 ³ hours

Typical Characteristics

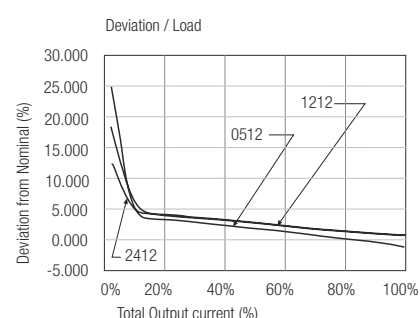
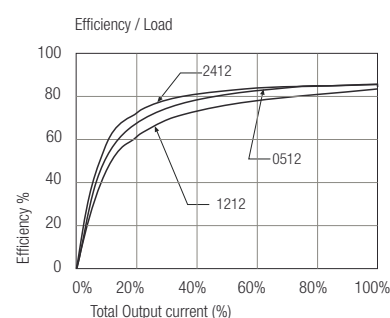
RJZ-xx05S



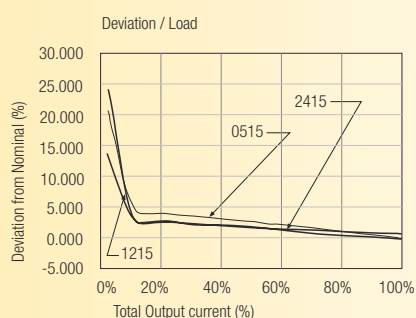
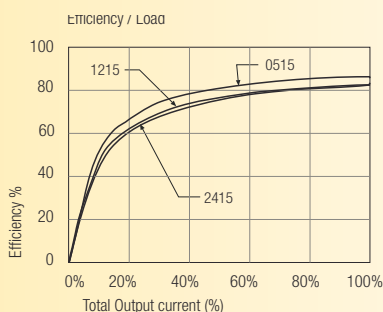
RJZ-xx09S



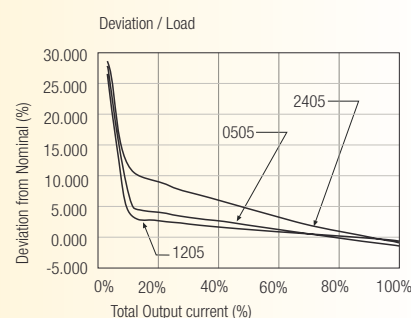
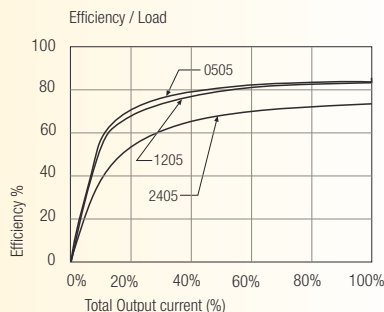
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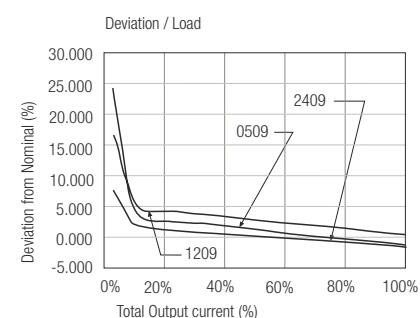
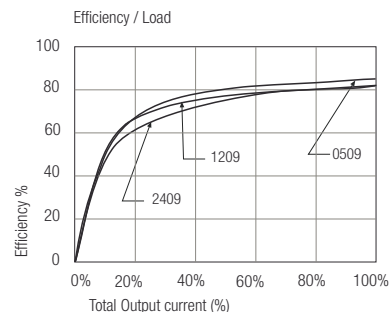
RJZ-xx15S



RGZ-xx05D

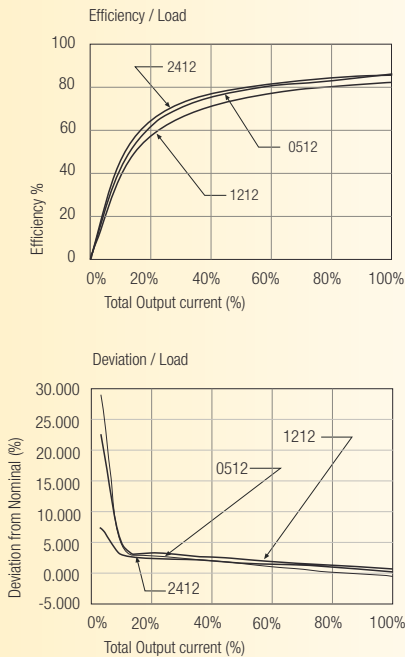


RGZ-xx09D

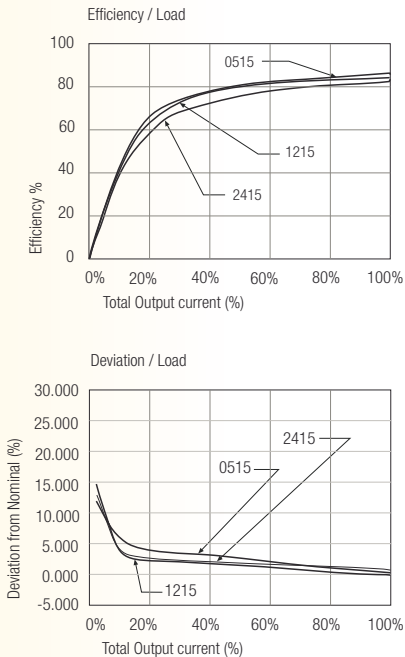


Typical Characteristics

RGZ-xx12D

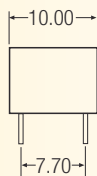
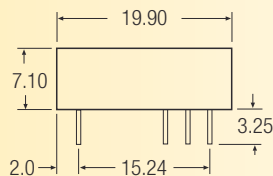


RGZ-xx15D



Package Style and Pinning (mm)

14 PIN DIP Package



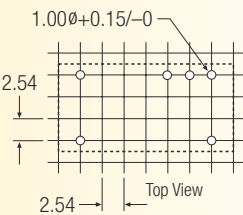
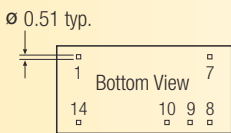
Single Output



Dual Output



Recommended Footprint Details



Pin Connections

Pin #	RJZ	RGZ
1	-Vin	-Vin
7	NC	NC
8	+Vout	+Vout
9	No Pin	Com
10	-Vout	-Vout
14	+Vin	+Vin

NC = No Connection
XX.X ± 0.5 mm
XX.XX ± 0.25 mm