

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)	(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

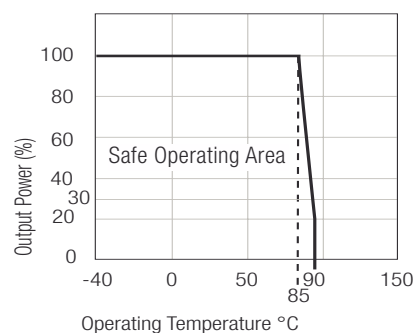
Specifications (Core Operating Area)

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.
Rated Working Voltage	(tested for 1 second)	4000VDC min.
	(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	

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Derating-Graph (Ambient Temperature)

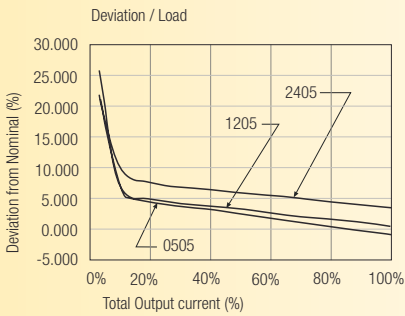
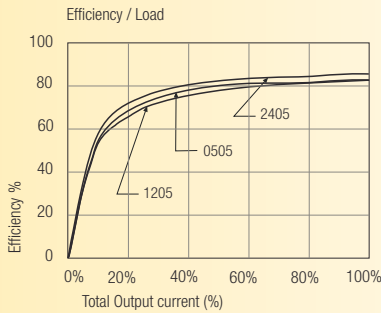


Typical Characteristics

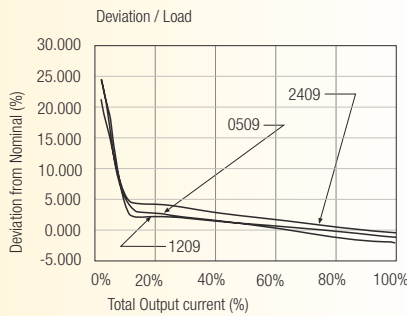
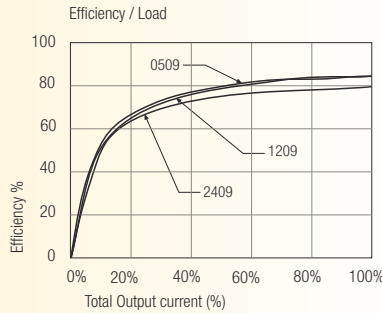
MTBF (+25°C)	using MIL-HDBK 217F	RJZ types	893 x 10 ³ hours
	} Detailed Information see Application Notes chapter "MTBF"	RGZ types	810 x 10 ³ hours
(+85°C)		using MIL-HDBK 217F	RJZ types
		RGZ types	151 x 10 ³ hours

Typical Characteristics

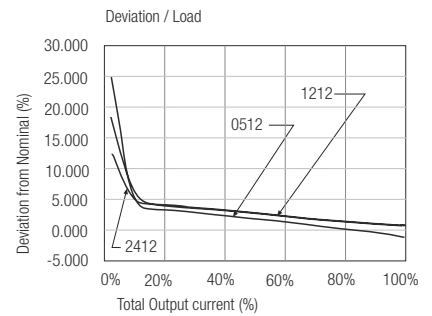
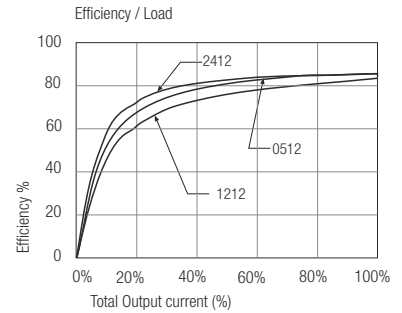
RJZ-xx05S



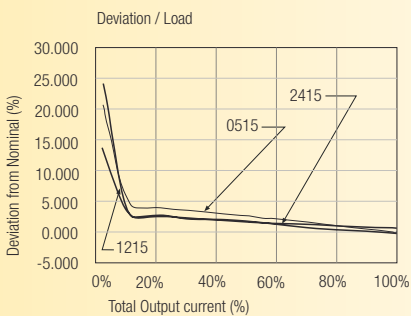
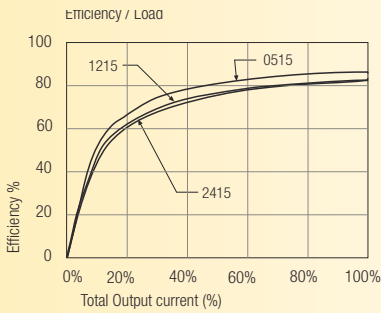
RJZ-xx09S



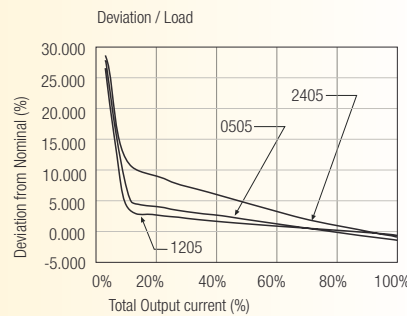
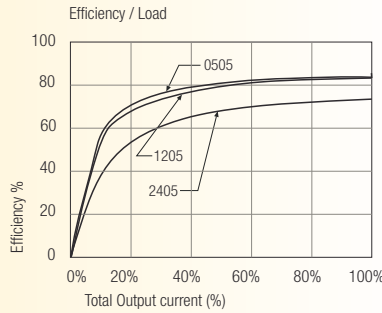
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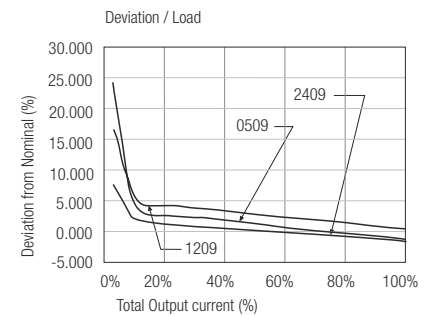
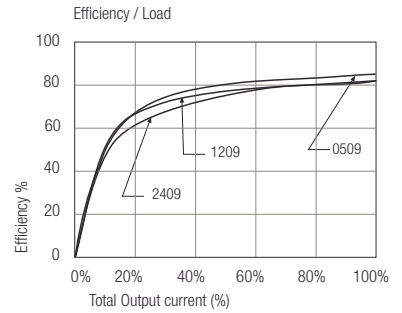
RJZ-xx15S



RGZ-xx05D

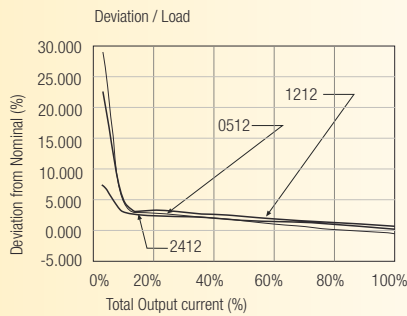
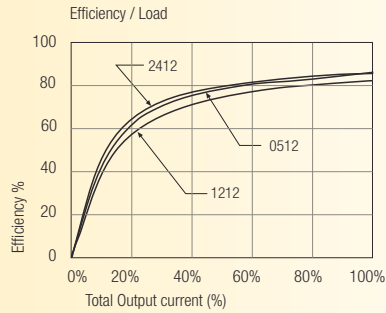


RGZ-xx09D

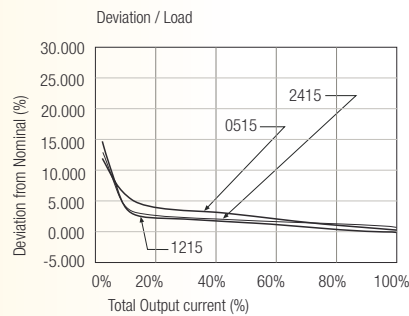
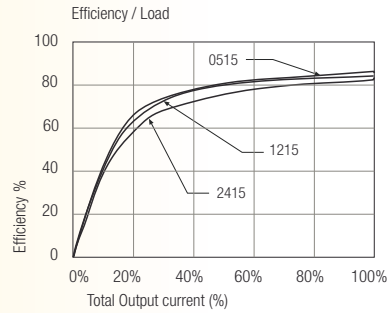


Typical Characteristics

RGZ-xx12D

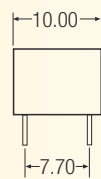
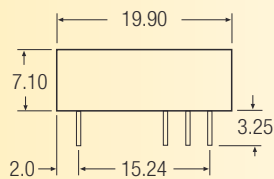


RGZ-xx15D



Package Style and Pinning (mm)

14 PIN DIP Package



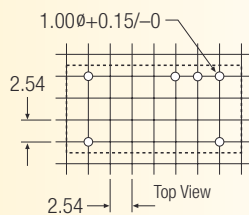
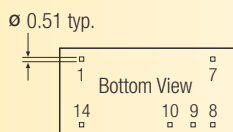
Single Output



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