Features

Unregulated Converters

- Custom Solutions Available
- 1kVDC Isolation
- No Extern. Components Required
- UL94V-0 Package Material
- No Heatsink Required
- Efficiency to 87%

ECONOLINE
DC/DC-Converter

RI Series

2 Watt SIP4 Single Output

Selection Guide

Part Number	Input Voltage	Output Voltage	Output Current	Efficiency
SIP4	(VDC)	(VDC)	(mA)	(%)
RI-xx3.3	5, 9, 12, 15, 24	3.3	606	70-75
RI-xx05	5, 9, 12, 15, 24	5	400	78-83
RI-xx07	5, 9, 12, 15, 24	7	285	78-83
RI-xx09	5, 9, 12, 15, 24	9	222	78-83
RI-xx12	5, 9, 12, 15, 24	12	167	80-85
RI-xx15	5, 9, 12, 15, 24	15	133	80-85
RI-xx24	5, 9, 12, 15, 24	24	83	80-87

xx = Input Voltage

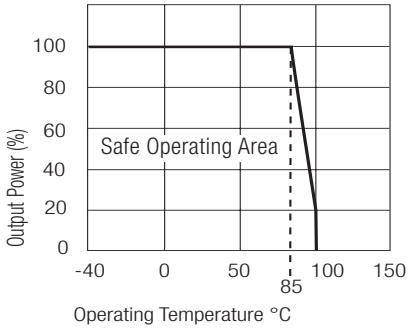


RECOM

Specifications (Core Operating Area)

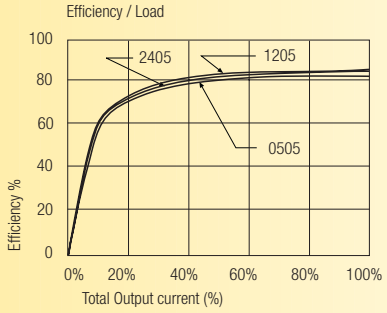
Input Voltage Range		±10%
Output Voltage Accuracy		±5%
Line Voltage Regulation		1.2%/1% of Vin max.
Load Voltage Regulation (10% to 100% full load)	3.3V output types	20% max.
	5V, output type	15% max.
	9V, 12V, 15V, 24V output types	10% max.
Output Ripple and Noise (20MHz limited)		200mVp-p max.
Operating Frequency		35kHz min. / 50kHz typ. / 85kHz max.
Efficiency at Full Load		70% min. / 80% typ.
No Load Power Consumption		142mW min. / 185mW typ. / 252mW max.
Isolation Voltage	(tested for 1 second)	1.000VDC min.
Rated Working Voltage	(long term isolation)	see Application Notes
Isolation Capacitance		30pF min. / 85pF max.
Isolation Resistance		10 GΩ min.
Short Circuit Protection		1 Second
Operating Temperature Range (free air convection)		-40°C to +85°C (see Graph)
Storage Temperature Range		-55°C to +125°C
Relative Humidity	MSL Level 1	95% RH
Package Weight		1.4g
MTBF (+25°C) } *Detailed Information see Application Notes chapter "MTBF"*	using MIL-HDBK 217F	845 x 10^3 hours
MTBF (+85°C) } *Detailed Information see Application Notes chapter "MTBF"*	using MIL-HDBK 217F	160 x 10^3 hours

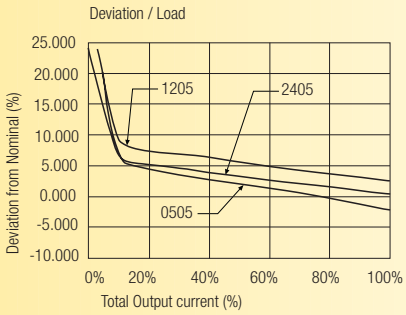
Derating-Graph
(Ambient Temperature)



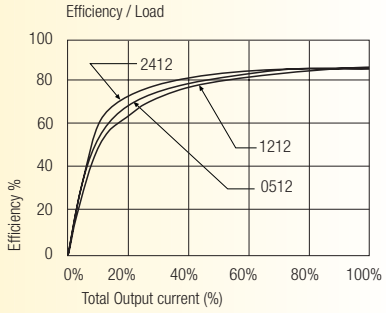
Typical Characteristics

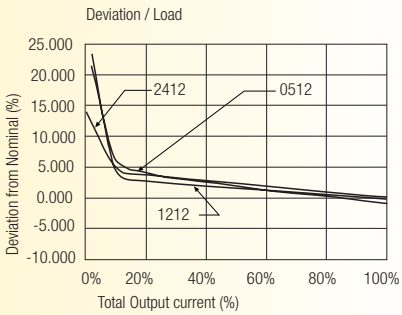
RI-xx05



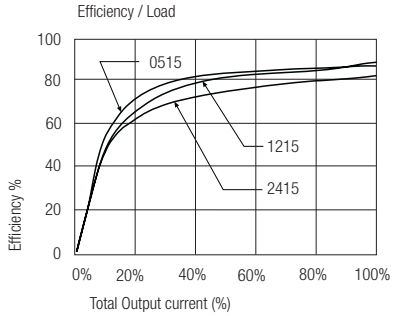


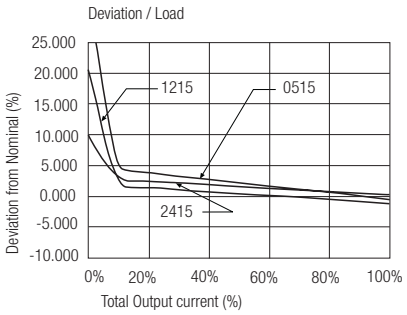
RI-xx12





RI-xx15

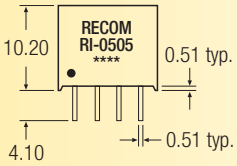


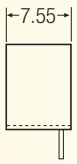


Package Style and Pinning (mm)

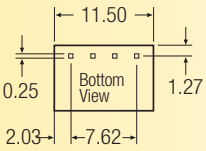
4 PIN SIP Package

3rd angle projection

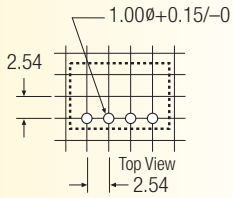








Recommended Footprint Details



Pin Connections

Pin #	Dual
1	-Vin
2	+Vin
3	–Vout
4	+Vout

XX.X ± 0.5 mm
XX.XX ± 0.25 mm