

# ECONOLINE - DC/DC-Converter

RBB Series, 5 Watt, 1kVDC Isolation, Regulated (Single & Dual Output)



## Features

- 1000VDC Isolation
- Low profile Package
- Low Cost
- Dual In Line Package
- No External Components Required
- Up to 5W Regulated Output Power
- 100% Burned In
- Low Noise
- MTBF > 7500.000 Hours

## Selection Guide

Part Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Input Current		Efficiency (%)	Isolation (VDC)
				Full Load	No Load		
RBB-0505S	4.5-5.5	5	1000	1660	120	60	1000
RBB-0512S	4.5-5.5	12	417	1492	120	67	1000
RBB-0515S	4.5-5.5	15	333	1492	120	67	1000
RBB-0505D	4.5-5.5	+/-5	+/-500	1660	120	60	1000
RBB-0512D	4.5-5.5	+/-12	+/-208	1492	120	67	1000
RBB-0515D	4.5-5.5	+/-15	+/-167	1492	120	67	1000
RBB-1205S	10.8-13.2	5	1000	683	60	61	1000
RBB-1212S	10.8-13.2	12	417	613	60	68	1000
RBB-1215S	10.8-13.2	15	333	613	60	69	1000
RBB-1205D	10.8-13.2	+/-5	+/-500	683	60	60	1000
RBB-1212D	10.8-13.2	+/-12	+/-208	613	60	68	1000
RBB-1215D	10.8-13.2	+/-15	+/-167	613	60	68	1000
RBB-2405S	21.6-26.4	5	1000	330	40	63	1000
RBB-2412S	21.6-26.4	12	417	302	40	69	1000
RBB-2415S	21.6-26.4	15	333	301	40	69	1000
RBB-2405D	21.6-26.4	+/-5	+/-500	330	40	60	1000
RBB-2412D	21.6-26.4	+/-12	+/-208	301	40	69	1000
RBB-2415D	21.6-26.4	+/-15	+/-167	301	40	69	1000

Note: Other input to output voltages may be available. Please contact us.

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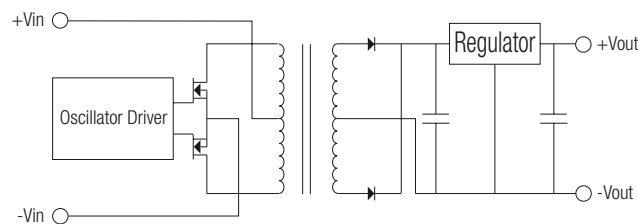
RECOM

**Specifications** (measured at  $T_A = 25^{\circ}\text{C}$ , at nominal input voltage and rated output current unless otherwise specified)

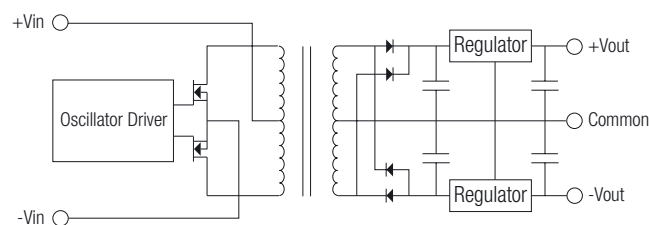
Voltage Setpoint Accuracy	+/-3% max.
Temperature Coefficient	+/-0.03%/ °C
Ripple & Noise (20MHz BW)	100mVp-p max.
Line Regulation (high line to low line)	+/-0.5% max.
Load Regulation (for output load current change from 10% to 100%)	+/-0.5% max.
Short Circuit Protection	Current Limit Protection
Short Circuit Restart	Automatic
Operating Temperature	-25°C to +71°C
Storage Temperature	-55°C to +125°C
Cooling	Free-Air Convection
Input Voltage Range	+/-10% max.
Input Filter	Pi Network
Efficiency	58% min.
Isolation Voltage (for 60 seconds)	1000 VDC min.
Isolation Resistance	$10^9 \Omega$ min.
Switching Frequency	50 kHz min.
Isolation Capacitance	120pF max
MTBF	750.000 Hours
Weight	16.2g typ.
Case Material	Non-Conductive Plastic
Case Size	23.5mmx40.5mmx10.2mm

## Simplified Schematic

### Single Output



### Dual Output

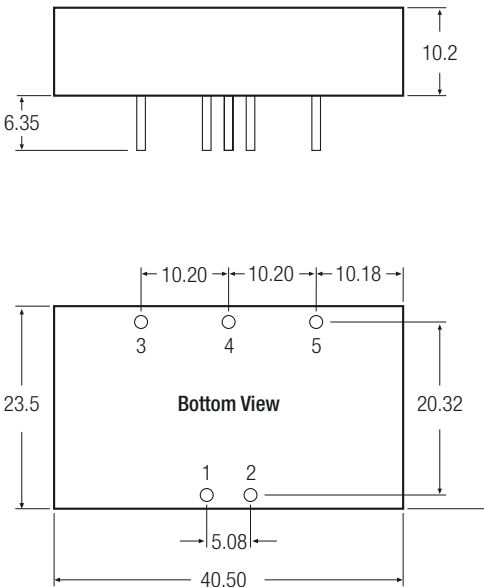


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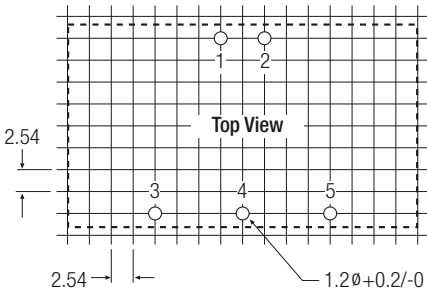
## Package Style and Pinning (mm)



### Pin Connections

Pin #	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	No Pin	Common
5	-Vout	-Vout

### Recommended Footprint Details



XX.X ± 0.5 mm  
XX.XX ± 0.25 mm

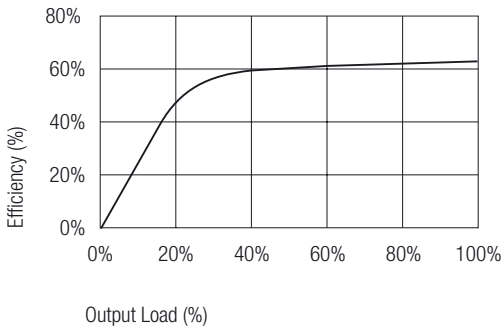
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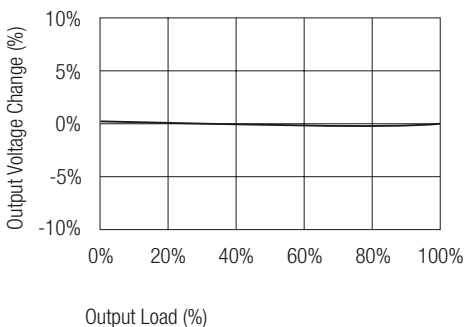


## Typical Characteristics and Temperature Derating Graph

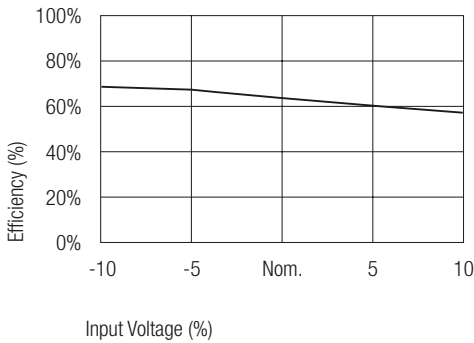
Output Load vs Efficiency



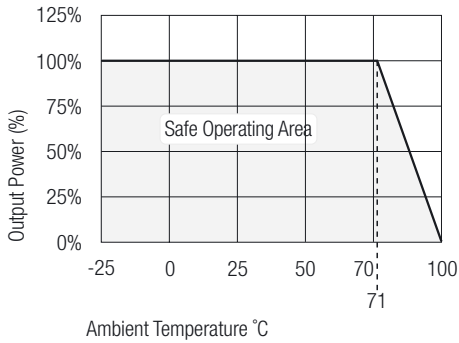
Output Load vs Output Voltage



Input Voltage vs Efficiency

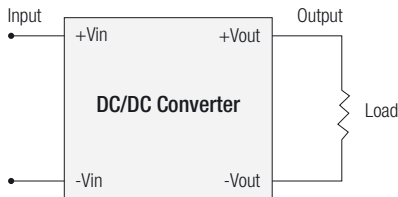


Temperature Derating



## Typical Applications

Single Output



Dual Output

