Features

Unregulated Converters

- Dual In-Line Package
- 1kVDC Isolation
- Internal Filtering
- No External Components Required
- 100% Burned In
- UL94V-0 Package Material
- Low Noise
- Efficiency to 87%

ECONOLINE
DC/DC-Converter

RAA Series

5 Watt
25.00 x 23.50mm
Single & Dual Output



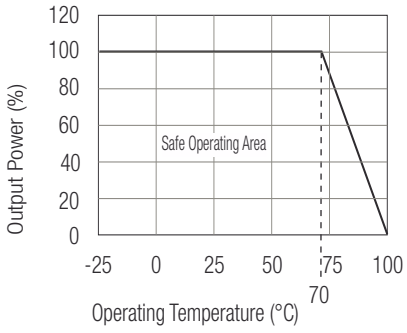
Selection Guide

Part Number	Input Voltage	Output Voltage	Output Current	Input Current Full Load	Input Current No Load	Efficiency
DIP Package	(VDC)	(VDC)	mA)	(mA)		(%)
RAA-0505S	5	5	1000	1250	80	80
RAA-0512S	5	12	417	1150	80	87
RAA-0515S	5	15	333	1150	80	87
RAA-1205S	12	5	1000	496	40	84
RAA-1212S	12	12	417	479	40	87
RAA-1215S	12	15	333	479	40	87
RAA-2405S	24	5	1000	261	20	83
RAA-2412S	24	12	417	245	20	85
RAA-2415S	24	15	333	239	20	87
RAA-0505D	5	±5	±500	1250	80	80
RAA-0512D	5	±12	±208	1150	80	87
RAA-0515D	5	±15	±167	1150	80	87
RAA-1205D	12	±5	±500	496	40	84
RAA-1212D	12	±12	±208	479	40	87
RAA-1215D	12	±15	±167	479	40	87
RAA-2405D	24	±5	±500	261	20	83
RAA-2412D	24	±12	±208	245	20	85
RAA-2415D	24	±15	±167	239	20	87

Specifications (Core Operating Area)

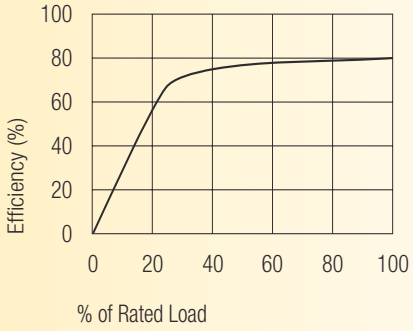
Voltage Setpoint Accuracy		±3% max.
Temperature Coefficient		±0.03%/°C
Ripple and Noise (20MHz BW)		100mVp-p max.
Line Regulation (for 1% change in input voltage)		±1.2% max.
Load Regulation (for output load current change from 20% to 100%)		±3% max.
Short Circuit Protection		1 Second
Input Voltage Range		±10% min.
Efficiency		See Selection Guide
Isolation Voltage	(tested for 1 second)	1000VDC min.
Rated Working Voltage	(long term isolation)	see Application Notes
Isolation Resistance		10 GΩ min.
Switching Frequency		50kHz typ.
Isolation Capacitance		80pF max.
Operating Temperature Range (free air convection)		-25°C to +70°C (see Graph)
Storage Temperature		-55°C to +100°C
Relative Humidity		95% RH
Case Material		Non-Conductive Plastic
Package Weight		19.2g
MTBF (+25°C) *Detailed Information see*	using MIL-HDBK 217F	1415 x 10^3hours
(+70°C) *Application Notes chapter "MTBF"*	using MIL-HDBK 217F	243 x 10^3hours

Derating-Graph
(Ambient Temperature)

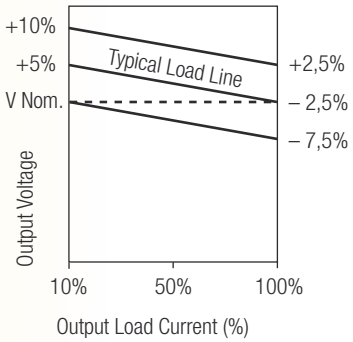


Typical Characteristics

RAA types



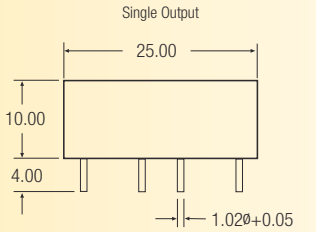
Tolerance Envelope

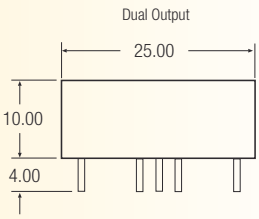


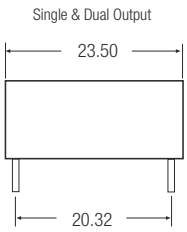
Package Style and Pinning (mm)

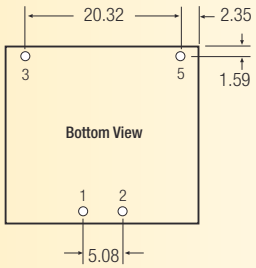
DIP Package Style

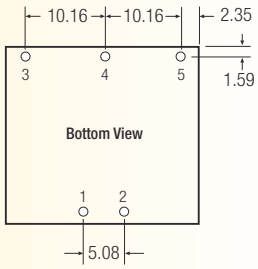
3rd angle projection



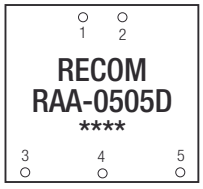




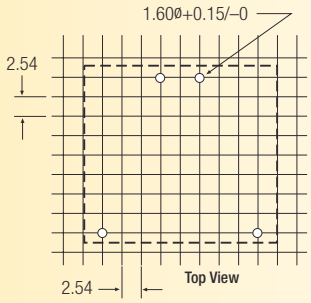


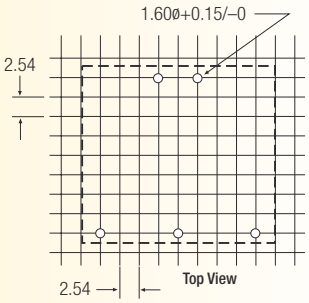






Recommended Footprint Details





Pin Connections

Pin #	Single	Dual
1	+Vin	+Vin
2	–Vin	Vin
3	+Vout	+Vout
4	No Pin	Com
5	–Vout	–Vout

XX.X ± 0.5 mm
XX.XX ± 0.25 mm