

## Features

### Regulated Converters

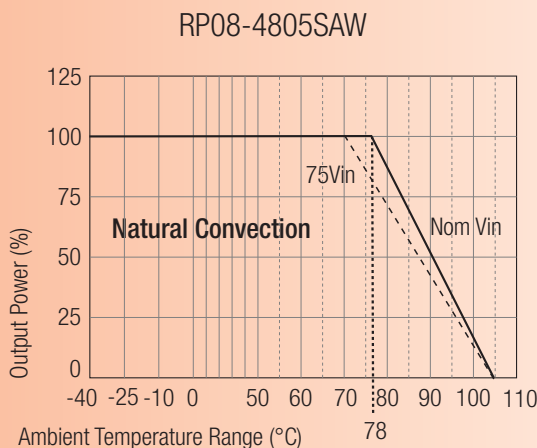
- 4:1 Wide Input Voltage Range
- 8 Watts Regulated Output Power
- 1.6kVDC Isolation
- Over Current and Over Voltage Protection
- Five-Sided Shield
- No Derating to 74°C
- Standard DIP24 and SMD-Pinning
- Efficiency to 88%

### Selection Guide 24V and 48V Wide Input Types

Part Number	Input Range	Output Voltage	Output Current	Input <sup>(4,5)</sup> Current	Efficiency <sup>(6)</sup>	Capacitive <sup>(7)</sup> Load max.
DIP24 (SMD)	VDC	VDC	mA	mA	%	μF
RP08-243.3SAW**	9-36	3.3	2400	40/407	85	1330
RP08-2405SAW**	9-36	5	1600	40/402	87	1330
RP08-2412SAW**	9-36	12	666	25/407	86	288
RP08-2415SAW**	9-36	15	533	25/407	86	200
RP08-483.3SAW**	18-75	3.3	2400	20/204	85	1330
RP08-4805SAW**	18-75	5	1600	20/201	87	1330
RP08-4812SAW**	18-75	12	666	13/201	87	288
RP08-4815SAW**	18-75	15	533	13/198	88	200
RP08-2405DAW**	9-36	±5	±800	20/417	84	±900
RP08-2412DAW**	9-36	±12	±333	25/407	84	±133
RP08-2415DAW**	9-36	±15	±267	25/407	86	±90
RP08-4805DAW**	18-75	±5	±800	10/208	84	±900
RP08-4812DAW**	18-75	±12	±333	13/203	85	±133
RP08-4815DAW**	18-75	±15	±267	13/201	87	±90

\*\* add Suffix SMD for SMD package

### Derating Graph (Ambient Temperature)



Derating graphs are valid only for the shown part numbers. If you need detailed derating-information about a part-number not shown here please contact our technical customer service at [info@recom-development.at](mailto:info@recom-development.at)

### Specifications (typical at nominal input and 25°C unless otherwise noted)

Input Voltage Range	24V nominal input	9-36VDC
	48V nominal input	18-75VDC
Input Filter		Pi Type
Input Surge Voltage (100 ms max.)	24V Input	50VDC
	48V Input	100VDC
Input Reflected Ripple (nominal Vin and full load)		20mAp-p

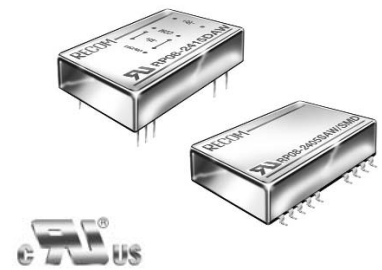
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## POWERLINE

DC/DC-Converter

# RP08-S\_DAW Series

8 Watt  
DIP24 & SMD,  
Single & Dual  
Output



UL-60950-1 Pending

# RECOM

**Specifications** (typical at nominal input and 25°C unless otherwise noted)

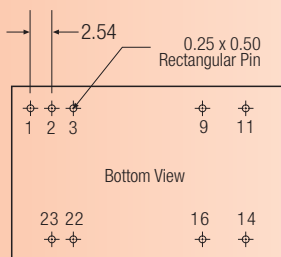
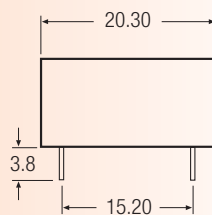
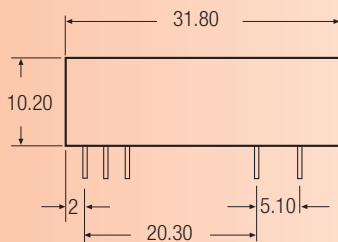
Start Up Time (nominal Vin and constant resistor load)		450ms typ.
Remote ON/OFF (see note 1)	DC-DC ON	Open or $3.0V < V_r < 12V$
	DC-DC OFF	Short or $0V < V_r < 1.2V$
Remote OFF input current	Nominal input	2.5mA
Output Power		8W max.
Output Voltage Accuracy (full Load and nominal Vin)		±1%
Minimum Load		0%
Line Regulation (low line, high line at full load)		±0.2%
Load Regulation (0% to 100% full load)	Single	±0.5%
	Dual	±1%
Cross Regulation Dual Output (asymmetrical load 25%/100% full load)		±5%
Ripple and Noise (20MHz bandwidth)		50mVp-p
Temperature Coefficient		±0.02%/°C max.
Transient Response (25% load step change)		250µs
Input Voltage Variation, dv/dt	complies with ETS300 132, part 4.4	5V/ms
Over Load Protection (% of full load at nominal Vin)		150% typ
Overvoltage Protection (Single)		Zener Diode Clamp
Undervoltage Protection	24V Input	DC-DC ON = 9VDC, DC-DC OFF = 8VDC
	48V Input	DC-DC ON = 18VDC, DC-DC OFF = 16VDC
Short Circuit Protection		Continuous, automatic recovery
Efficiency		see „Selection Guide“ table
Isolation Voltage	In to Out and I/O to case	1600VDC min.
Isolation Resistance		10 GΩ min.
Isolation Capacitance		1500pF max.
Operating Frequency		300kHz typ.
Operating Temperature Range	5, 12, 15, ±12, ±15V	-40°C to +78°C
	3.3, ±5V	-40°C to +74°C
	with derating	-40°C to +105°C
Maximum Case Temperature		+105°C
Storage Temperature Range		-55°C to +125°C
Thermal Impedance	Natural convection	12°C/Watt
Case Material		Nickel-Coated copper
Base Material		Non-conductive black plastic
Potting Material		Epoxy (UL94-V0)
Weight	DIP	18g
	SMD	20g
Conducted Emissions (see note 3)	EN55022	Class A
Radiated Emissions (see note 3)	EN55022	Class A
ESD	EN61000-4-2	Perf. Criteria B
Radiated Immunity	EN61000-4-3	Perf. Criteria A
Fast Transient	EN61000-4-4	Perf. Criteria B
Surge	EN61000-4-5	Perf. Criteria B
Conducted Immunity	EN61000-4-6	Perf. Criteria A
Thermal Shock		MIL-STD-810D
Vibration		10-55Hz, 2G, 30 Min. along X, Y and Z
Relative Humidity		5% to 95% RH
MTBF (see note 2)	Bellcore-TR-NWT-000332	2350 x 10 <sup>3</sup> hours

**Notes :**

1. The ON/OFF control pin voltage is referenced to negative input.
2. BELLCORE TR-NWT-000332. Case I: 50% Stress, Temperature at 40°C (Ground fixed and controlled environment).
3. Requires external filter to meet EN55022 Class A
4. Typical value at nominal input voltage and no load.
5. Maximum value at nominal input voltage and full load
6. Typical value at nominal input voltage and full load.
7. Test by minimum Vin and constant resistor load.

**Package Style and Pinning (mm)**

**DIP24 Package Style**



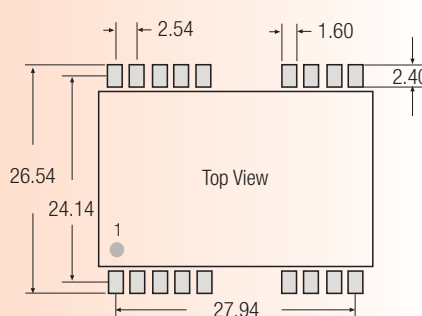
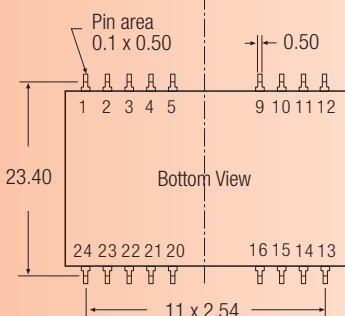
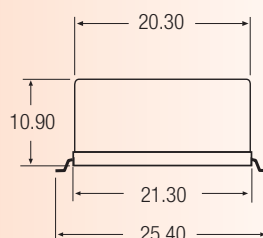
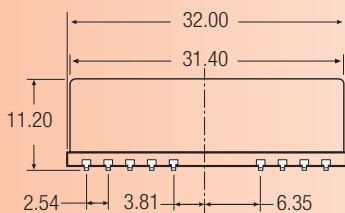
**Pin Connections**

Pin #	Single	Dual
1	ON/OFF	ON/OFF
2	-Vin	-Vin
3	-Vin	-Vin
9	NC	Com
11	NC	-Vout
14	+Vout	+Vout
16	-Vout	Com
22	+Vin	+Vin
23	+Vin	+Vin

NC = No Connection

Pin Pitch Tolerance  $\pm 0.35$  mm

**SMD Package Style**



**SMD Package Style**

Same spec. as the original DIP spec. and pin definition, excl. of the SMD type pin.

**Pin Connections**

Pin #	Single	Dual
1	ON/OFF	ON/OFF
2	-Vin	-Vin
3	-Vin	-Vin
9	NC	Com
11	NC	-Vout
14	+Vout	+Vout
16	-Vout	Com
22	+Vin	+Vin
23	+Vin	+Vin
Others	NC	NC

NC = No Connection

Pin Pitch Tolerance  $\pm 0.35$  mm