

2 Watts IU Series



- Regulated Single & Dual Output
- SIP or DIP Package
- Wide 2:1 Input Range
- 1000 VDC Isolation, 3000 VDC Option
- Continuous Short Circuit Protection
- Efficiency up to 78%
- -40 °C To +85 °C Operating Temperature

Specification Input

- Input Voltage Range • See table
- Input Current (no load) • See table
- Input Reflected Ripple • 35 mA rms through 12 μ H inductor, 5 Hz to 20 MHz
- Input Filter • Capacitor

Output

- Output Voltage • See tables
- Output Voltage Balance • $\pm 1\%$ between dual output rails
- Initial Set Accuracy • $\pm 2\%$
- Start Up Rise Time • 100 ms typical
- Line Regulation • $\pm 0.5\%$
- Load Regulation • $\pm 1\%$ for 25-100% load change
- Cross Regulation • $\pm 5\%$
- Transient Response • $\pm 3\%$ deviation recovering to $< 1\%$ within 300 μ s for 25% load change
- Ripple & Noise • 80 mV pk-pk, 20 MHz BW
- Short Circuit Protection • Continuous with auto recovery
- Current Limiting • Typically 110% of max iout
- Remote On/Off • Applying 5 V via 1 k Ω current limiting resistor & diode to pin 3 turns output off
- Temp Coefficient • $\pm 0.02/^\circ\text{C}$ max

General

- Efficiency • See table
- Isolation Voltage • 1000 VDC input to output 1 min
Optional 3000 VDC (see note 2)
- Switching Frequency • 100-650 kHz variable
- MTBF • > 1.1 Mhrs to MIL-STD-217F

Environmental

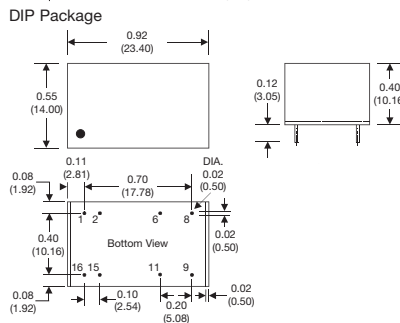
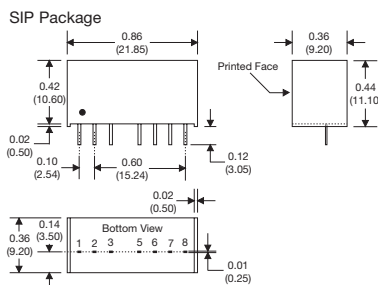
- Operating Temperature • -40 °C to +85 °C, derate from 100% load at +85 °C to 0% load at +100 °C
- Storage Temperature • -40 °C to +125 °C
- Case Temperature • +100 °C max
- Humidity • 95% RH
- Cooling • Natural convection

Notes

1. For dual inline package replace 'S' in model number with 'D'.
2. For optional 3 kV isolation add suffix '-H' to the model number.
3. For dual output delete suffix 'A' & split output currents equally between rails.
4. For optional Remote On/Off, add suffix '-R' to model number.

Input Voltage	No Load Input Current	Output Voltage	Output Current	Efficiency	Model Number ^(1,2,3,4)
4.5-9.0 V	30 mA	3.3 V	500 mA	60%	IU0503SA
	30 mA	5.0 V	400 mA	66%	IU0505SA
	30 mA	9.0 V	222 mA	68%	IU0509SA
	30 mA	12.0 V	167 mA	70%	IU0512SA
	30 mA	15.0 V	133 mA	70%	IU0515SA
	30 mA	24.0 V	83 mA	68%	IU0524SA
9.0-18.0 V	15 mA	3.3 V	500 mA	66%	IU1203SA
	15 mA	5.0 V	400 mA	75%	IU1205SA
	15 mA	9.0 V	222 mA	75%	IU1209SA
	15 mA	12.0 V	167 mA	77%	IU1212SA
	15 mA	15.0 V	133 mA	77%	IU1215SA
	15 mA	24.0 V	83 mA	75%	IU1224SA
18.0-36.0 V	8 mA	3.3 V	500 mA	69%	IU2403SA
	8 mA	5.0 V	400 mA	75%	IU2405SA
	8 mA	9.0 V	222 mA	77%	IU2409SA
	8 mA	12.0 V	167 mA	78%	IU2412SA
	8 mA	15.0 V	133 mA	78%	IU2415SA
	8 mA	24.0 V	83 mA	77%	IU2424SA
36.0-72.0 V	6 mA	3.3 V	500 mA	62%	IU4803SA
	6 mA	5.0 V	400 mA	70%	IU4805SA
	6 mA	9.0 V	222 mA	72%	IU4809SA
	6 mA	12.0 V	167 mA	76%	IU4812SA
	6 mA	15.0 V	133 mA	76%	IU4815SA
	6 mA	24.0 V	83 mA	74%	IU4824SA

Mechanical Details



Dimensions are in inches (mm)
Weight: 4.5 g

PIN CONNECTIONS		
Pin	Single	Dual
1	-V Input	-V Input
2	+V Input	+V Input
3	Opt. ROF*	Opt. ROF*
5	No Pin/N.C.	No Pin/N.C.
6	+V Output	+V Output
7	-V Output	-V Output
8	NC	Common

*When optional ROF is present pin 5 is N.C. When not present pin 3 & 5 are No Pin.

Dimensions are in inches (mm)
Weight: 6.0 g

PIN CONNECTIONS		
Pin	Single	Dual
1	-V Input	-V Input
2	-V Input	-V Input
6	NC	Common
8	NC	-V Output
9	+V Output	+V Output
11	-V Output	Common
15	+V Input	+V Input
16	+V Input	+V Input