

IS SERIES

DC/DC Single Output: 3 Watts



Features

- Regulated Single Output
- SIP Package
- 1000 VDC Isolation
- Optional 3000 VDC Isolation
- Continuous Short Circuit Protection
- MTBF >1.1 Mhrs
- 3 Year Warranty

Specification

Input

- Input Voltage Range • Nominal $\pm 10\%$
- Input Reflected Ripple Current • 20 mA pk-pk through 12 μ H inductor, 5 Hz to 20 MHz
- Input Filter • Capacitor

Output

- Output Voltage • See table
- Minimum Load • None⁽²⁾
- Line Regulation • $\pm 0.5\%$ max
- Load Regulation • $\pm 0.5\%$ max (0% to full load)
 $\pm 1.5\%$ for 3.3 V versions
- Setpoint Accuracy • $\pm 2\%$ max
- Ripple & Noise • 75 mV pk-pk max, 20 MHz bandwidth
- Temperature Coefficient • $\pm 0.02\%/^{\circ}\text{C}$
- Short Circuit Protection • Continuous with auto recovery (foldback)
- Maximum Capacitive Load • 470 μ F

General

- Efficiency • See table
- Isolation Voltage • 1000 VDC, optional 3000 VDC⁽¹⁾
- Isolation Resistance • $10^9 \Omega$
- Isolation Capacitance • 60 pF
- Switching Frequency • 50 kHz typical
- MTBF • >1.1 Mhrs to MIL-HDBK- 217F at 25 $^{\circ}\text{C}$, GB

Environmental

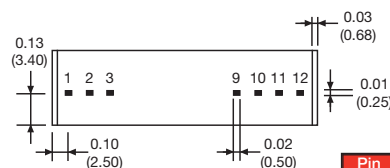
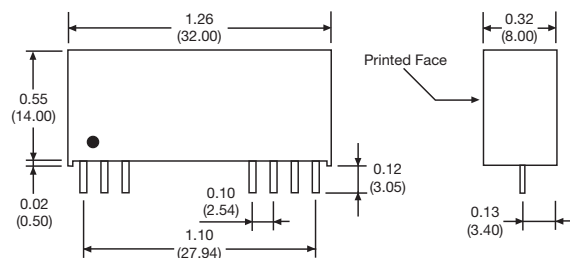
- Operating Temperature • -25°C to $+70^{\circ}\text{C}$
- Storage Temperature • -40°C to $+125^{\circ}\text{C}$
- Case Temperature • $+100^{\circ}\text{C}$ max
- Cooling • Convection-cooled
- Derating • Derate from 100% load at $+70^{\circ}\text{C}$ to 50% load at $+85^{\circ}\text{C}$

Notes

1. Add suffix '-H' to model number for 3000 VDC isolation.
2. Operation at no load will not damage device but it may not meet all specifications
3. All dimensions in inches (mm).
4. Pin pitch tolerance: ± 0.014 (± 0.35)
5. Case tolerance: ± 0.02 (± 0.5)
6. Weight: 0.02 lbs (7.2 g)

Input Voltage	No Load Input Current	Output Voltage	Output Current	Efficiency	Model Number ⁽¹⁾
5 V	100 mA	3.3 V	600 mA	53%	IS0503SA
	100 mA	5.0 V	600 mA	62%	IS0505SA
	100 mA	9.0 V	333 mA	67%	IS0509SA
	100 mA	12.0 V	250 mA	70%	IS0512SA
	100 mA	15.0 V	200 mA	68%	IS0515SA
	120 mA	24.0 V	125 mA	64%	IS0524SA
12 V	60 mA	3.3 V	600 mA	55%	IS1203SA
	60 mA	5.0 V	600 mA	60%	IS1205SA
	60 mA	9.0 V	333 mA	67%	IS1209SA
	60 mA	12.0 V	250 mA	69%	IS1212SA-1
	60 mA	15.0 V	200 mA	70%	IS1215SA
	60 mA	24.0 V	125 mA	68%	IS1224SA
24 V	30 mA	3.3 V	600 mA	54%	IS2403SA
	30 mA	5.0 V	600 mA	61%	IS2405SA
	30 mA	9.0 V	333 mA	65%	IS2409SA
	30 mA	12.0 V	250 mA	70%	IS2412SA
	30 mA	15.0 V	200 mA	71%	IS2415SA
	30 mA	24.0 V	125 mA	71%	IS2424SA

Mechanical Details



Pin	Standard	'H' Versions
1	+Vin	+Vin
2	N.C.	-Vin
3	N.C.	N.C.
9	N.C.	N.C.
10	-Vout	-Vout
11	+Vout	+Vout
12	-Vin	N.C.