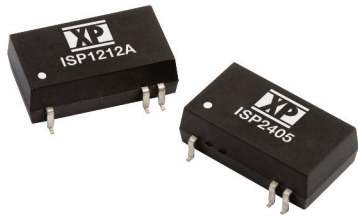


2 Watts ISP Series



- Single & Dual Regulated Outputs
- 2:1 Input Range
- SMD Package
- Industry Standard Pinout
- 1500 VDC Isolation
- -40 °C to +85 °C Operation
- 3 Year Warranty

Specification

Input

- Input Voltage Range
 - 12 V (9-18 VDC)
 - 24 V (18-36 VDC)
- Input Reverse Voltage Protection
 - None
- Input Surge
 - 12 V: 22 VDC for 100 ms
 - 24 V: 40 VDC for 100 ms

Output

- Output Voltage
 - See table
- Minimum Load
 - 10%⁽¹⁾
- Line Regulation
 - ±0.5%
- Load Regulation
 - ±1%, balanced load on dual outputs
- Setpoint Accuracy
 - ±3%/±5%, positive/negative output
- Ripple & Noise
 - 150 mV pk-pk 20 MHz bandwidth
- Temperature Coefficient
 - 0.03%/°C
- Short Circuit Protection
 - Continuous, automatic recovery

Input Voltage	Output Voltage	Output Current	Efficiency (typ)	Model Number
12 VDC	3.3 V	500 mA	70%	ISP1203A
	5.0 V	400 mA	74%	ISP1205A
	12.0 V	167 mA	78%	ISP1212A
	±5.0 V	±200 mA	74%	ISP1205
	±12.0 V	±83 mA	78%	ISP1212
24 VDC	±15.0 V	±67 mA	80%	ISP1215
	3.3 V	500 mA	72%	ISP2403A
	5.0 V	400 mA	76%	ISP2405A
	12.0 V	167 mA	80%	ISP2412A
	±5.0 V	±200 mA	74%	ISP2405
	±12.0 V	±83 mA	78%	ISP2412
	±15.0 V	±67 mA	80%	ISP2415

General

- Efficiency
 - See table
- Isolation Voltage
 - 1500 VDC
- Isolation Resistance
 - 10⁹ Ω
- Isolation Capacitance
 - 85 pF typical
- Switching Frequency
 - 300 kHz typical at nominal input, full load
- MTBF
 - >1 Mhrs to MIL-HDBK-217F at 25 °C, GB

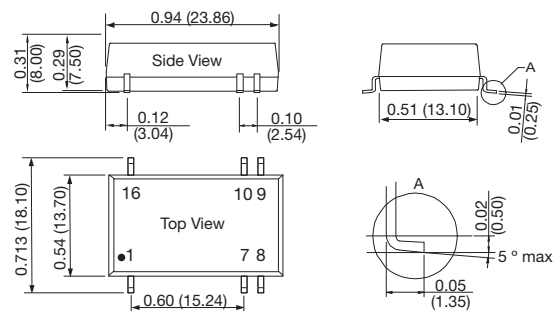
Environmental

- Operating Temperature
 - -40 °C to +70 °C, derate linearly to 0% load at +100 °C
- Storage Temperature
 - -55 °C to +125 °C
- Case Temperature
 - 100 °C max
- Cooling
 - Convection-cooled
- Lead Temperature
 - 240 °C, 0.06 in (1.5 mm) from case, 10 s

Notes

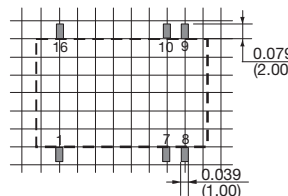
1. Operation at no load will not damage unit but it may not meet all specifications.

Mechanical Details



Recommended footprint

Top view grid: 0.1 x 0.1 in (2.54 x 2.54 mm)



Pin	Single	Dual
1	-Vin	-Vin
7	N.C.	N.C.
8	N.C.	0 V
9	+Vo	+Vo
10	0 V	-Vo
16	Vin	Vin

N.C. Not connected

Notes

1. All dimensions in inches (mm)
2. Tolerance: ±0.010 (±0.25)
3. Pin tolerance: ±0.004 (±0.10 mm)
4. Weight: 0.011 lbs (5.2 g)