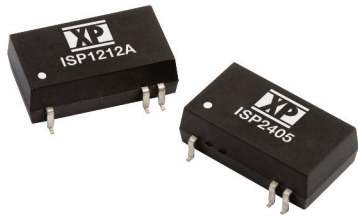


2 Watts ISP Series



- 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

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
- Recommended Solder Profile • IPC/JEDEC J-STD-020D.1

Environmental

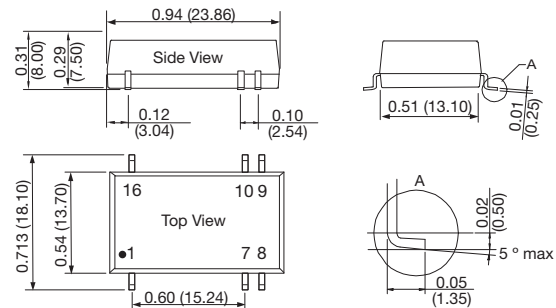
- Operating Temperature • -40 °C to +70 °C, derate linearly to 0% load at +100 °C
- Storage Temperature • -55 °C to +125 °C
- Case Temperature • 100 °C max
- Cooling • Convection-cooled
- Lead Temperature • 240 °C, 0.06 in (1.5 mm) from case, 10 s

Notes

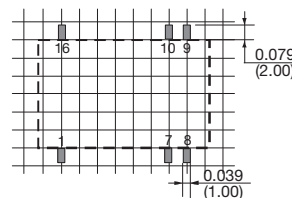
1. Operation at no load will not damage unit but it may not meet all specifications.

| Input Voltage | Output Voltage | Output Current | Efficiency (typ) | Model Number ⁽⁹⁾ |
|---------------|----------------|----------------|------------------|-----------------------------|
| 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 |

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. | 0V |
| 9 | +Vo | +Vo |
| 10 | 0V | -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)
5. For optional tape & reel option add suffix -TR to the end of the p/n. Reel quantity = 200