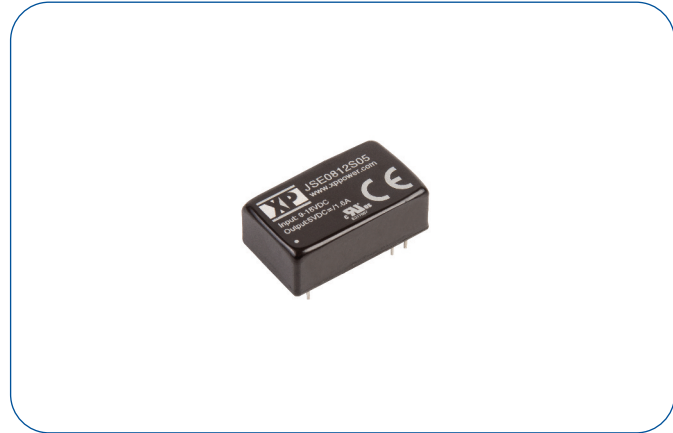


8 Watts

- Regulated Single & Dual Output
- 2:1 Input Range
- DIP16 Package
- 1500 VDC Isolation
- Operating Temperature -40 °C to +105 °C
- ITE Safety Approvals
- High Power Density
- Metal Case
- 3 Year Warranty



Dimensions:

JSE08:
0.94 x 0.54 x 0.31" (23.8 x 13.7 x 8.0 mm)

Models & Ratings

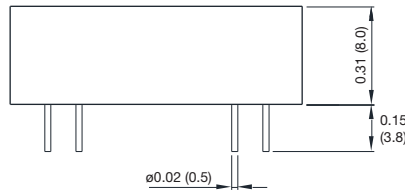
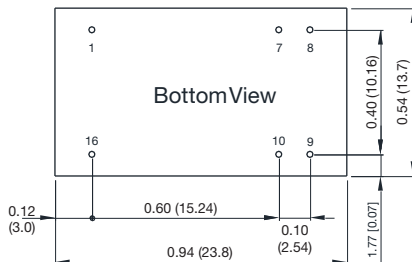
| Input voltage | Output voltage | Output current | Input current ⁽¹⁾ | | Maximum capacitive load ⁽²⁾ | Efficiency | Model number |
|---------------|----------------|----------------|------------------------------|-----------|--|------------|--------------|
| | | | No load | Full load | | | |
| 9-18V | 3V3 | 1600 mA | 10 mA | 565 mA | 680 µF | 78% | JSE0812S3V3 |
| | 5 V | 1600 mA | | 825 mA | 680 µF | 81% | JSE0812S05 |
| | 12 V | 665 mA | | 790 mA | 330 µF | 84% | JSE0812S12 |
| | 15 V | 535 mA | | 795 mA | 330 µF | 84% | JSE0812S15 |
| | 24 V | 335 mA | | 790 mA | 150 µF | 85% | JSE0812S24 |
| | ±12 V | ±335 mA | | 790 mA | ±150 µF | 85% | JSE0812D12 |
| | ±15 V | ±265 mA | | 790 mA | ±150 µF | 84% | JSE0812D15 |
| 18-36V | 3V3 | 1600 mA | 10 mA | 280 mA | 680 µF | 78% | JSE0824S3V3 |
| | 5 V | 1600 mA | | 405 mA | 680 µF | 82% | JSE0824S05 |
| | 12 V | 665 mA | | 390 mA | 330 µF | 85% | JSE0824S12 |
| | 15 V | 535 mA | | 395 mA | 330 µF | 85% | JSE0824S15 |
| | 24 V | 335 mA | | 390 mA | 150 µF | 86% | JSE0824S24 |
| | ±12 V | ±335 mA | | 395 mA | ±150 µF | 85% | JSE0824D12 |
| | ±15 V | ±265 mA | | 385 mA | ±150 µF | 86% | JSE0824D15 |
| 36-75V | 3V3 | 1600 mA | 8 mA | 140 mA | 680 µF | 78% | JSE0848S3V3 |
| | 5 V | 1600 mA | | 205 mA | 680 µF | 81% | JSE0848S05 |
| | 12 V | 665 mA | | 195 mA | 330 µF | 85% | JSE0848S12 |
| | 15 V | 535 mA | | 195 mA | 330 µF | 85% | JSE0848S15 |
| | 24 V | 335 mA | | 195 mA | 150 µF | 86% | JSE0848S24 |
| | ±12 V | ±335 mA | | 195 mA | ±150 µF | 86% | JSE0848D12 |
| | ±15 V | ±265 mA | | 195 mA | ±150 µF | 86% | JSE0848D15 |

Notes

1. Input currents measured at nominal input voltage.

2. Maximum capacitive load is per output.

Mechanical Details



| Pin Connections | | |
|-----------------|---------------|---------------|
| Pin | Single | Dual |
| 1 | -Vin | -Vin |
| 7 | No Connection | No Connection |
| 8 | No Connection | Common |
| 9 | +Vout | +Vout |
| 10 | -Vout | -Vout |
| 16 | +Vin | +Vin |

Input

| Characteristic | Minimum | Typical | Maximum | Units | Notes & Conditions |
|----------------------|--------------------------|---------|---------|-------------|--------------------|
| Input Voltage Range | 9.0 | | 18 | VDC | 12 V nominal |
| | 18.0 | | 36 | VDC | 24 V nominal |
| | 36.0 | | 75 | VDC | 48 V nominal |
| Input Filter | Internal Pi type | | | | |
| Undervoltage Lockout | ON at >9V, OFF at <8 V | | | | 12 V models |
| | ON at >18V, OFF at <16 V | | | | 24 V models |
| | ON at >36V, OFF at <34 V | | | | 48 V models |
| Input Surge | | | 25 | VDC for 1 s | 12 V models |
| | | | 50 | | 24 V models |
| | | | 100 | | 48 V models |

Output

| Characteristic | Minimum | Typical | Maximum | Units | Notes & Conditions |
|--------------------------|---------|---------|---------|-------------|---|
| Output Voltage | 3.3 | | 30 | VDC | See Models and Ratings table |
| Initial Set Accuracy | | | ±2.0 | % | At full load |
| Output Voltage Balance | | ±1.0 | ±2.0 | % | For dual output with balanced loads |
| Minimum Load | | | | A | No minimum load required |
| Line Regulation | | ±0.2 | ±0.8 | % | From minimum to maximum input at full load |
| Load Regulation | | ±0.5 | ±1.0 | % | From 0 to full load |
| Cross Regulation | | | ±5.0 | % | On dual output models when one load is varied between 25% and 100% and other is fixed at 100% |
| Transient Response | | 3 | 5 | % deviation | Recovery within 1% in less than 250 µs for a 25% load change. |
| Ripple & Noise | | | 55 | mV pk-pk | 20 MHz bandwidth. Measured using 0.47 µF ceramic capacitor. |
| Overload Protection | | | 150 | % | |
| Short Circuit Protection | | | | | Continuous Trip & Restart (Hiccup mode), with auto recovery |
| Maximum Capacitive Load | | | | | See Models and Ratings table |
| Temperature Coefficient | | | 0.02 | %/°C | |

General

| Characteristic | Minimum | Typical | Maximum | Units | Notes & Conditions |
|----------------------------|-----------------|-------------|---------|-------------------|------------------------------|
| Efficiency | | 85 | | % | See Models and Ratings table |
| Isolation: Input to Output | 1500/1800 | | | VDC | 60 s/1 s |
| Isolation Resistance | 10 ⁹ | | | Ω | At 500 VDC |
| Isolation Capacitance | | 500 | | pF | |
| Switching Frequency | | 370 | | kHz | |
| Power Density | | | 50.8 | W/in ³ | |
| Mean Time Between Failure | | 1 | | MHrs | MIL-HDBK-217F, +25 °C GB |
| Weight | | 0.013 (6.1) | | lb (g) | |

Environmental

| Characteristic | Minimum | Typical | Maximum | Units | Notes & Conditions |
|-----------------------|----------------|---------|---------|-------|---------------------|
| Operating Temperature | -40 | | +105 | °C | See Derating Curve. |
| Storage Temperature | -50 | | +125 | °C | |
| Case Temperature | | | +105 | °C | |
| Humidity | | | 95 | %RH | Non-condensing |
| Cooling | | | | | Natural convection |
| Case Flammability | UL 94V-0 Rated | | | | |

EMC: Emissions

| Phenomenon | Standard | Test Level | Notes & Conditions |
|------------|----------|------------|--------------------|
| Conducted | EN55022 | Class A | No filter required |

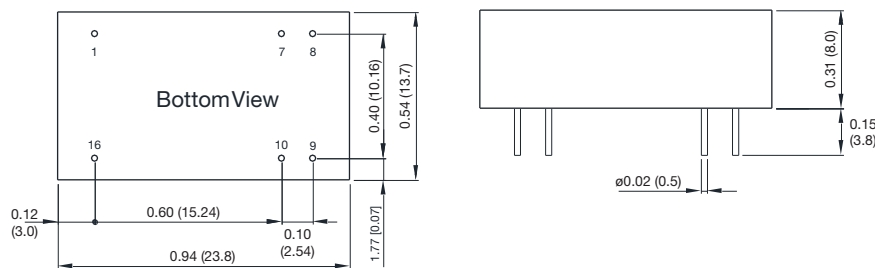
EMC: Immunity

| Phenomenon | Standard | Test Level | Criteria | Notes & Conditions |
|------------|-------------|------------------------------------|----------|--|
| ESD | EN61000-4-2 | ±8 kV air discharge, ±6 kV contact | A | |
| Radiated | EN61000-4-3 | 10 V/m | A | |
| EFT/Burst | EN61000-4-4 | ±2 kV | A | With external capacitor, suggested part is CHEMI-CON KY 330µF/100V |
| Surge | EN61000-4-5 | ±1 kV | A | With external capacitor, suggested part is CHEMI-CON KY 330µF/100V |
| Conducted | EN61000-4-6 | 10 V rms | A | |

Safety Approvals

| Safety Agency | Safety Standard | Notes & Conditions |
|---------------|-----------------|------------------------|
| CB Report | IEC60950-1 | Information Technology |
| UL | UL/cUL60950-1 | Information Technology |

Mechanical Details



| Pin Connections | | |
|-----------------|---------------|---------------|
| Pin | Single | Dual |
| 1 | -Vin | -Vin |
| 7 | No Connection | No Connection |
| 8 | No Connection | Common |
| 9 | +Vout | +Vout |
| 10 | -Vout | -Vout |
| 16 | +Vin | +Vin |

Notes

- All dimensions are in inches (mm)
- Weight: 0.013 lbs (6.1 g) approx.
- Tolerance: X.XX±0.01 (X.X±0.25)
X.XXX±0.005 (X.XX±0.13)
- Pin Tolerance: ±0.002 (±0.05)

Application Notes

Derating Curve

