

3 Watts IZ Series



- Regulated Single & Dual Output
- Wide 2:1 Input Range
- SIP Package
- 1600 VDC Isolation
- Continuous Short Circuit Protection
- Remote On/Off
- 3 Year Warranty

Specification

Input

- Input Voltage Range** • See table
- Input Reflected Ripple Current** • 35 mA pk-pk through 12 μ H inductor
5 Hz to 20 MHz
- Input Filter** • Capacitor

Output

- Output Voltage** • See table
- Minimum Load** • None⁽⁴⁾
- Line Regulation** • $\pm 0.5\%$ max
- Load Regulation** • $\pm 1.0\%$ max from 25-100% load
- Setpoint Accuracy** • $\pm 1\%$ max
- Ripple & Noise** • 75 mV pk-pk max, 20 MHz bandwidth
- Short Circuit Protection** • Continuous with auto recovery (foldback)
- Cross Regulation** • $\pm 5\%$ on dual output models
- Remote On/Off** • Applying 5 V via 1 k Ω current limiting resistor (with respect to -V Input) turns output off

Temperature Coefficient • 0.02%/C

General

- Efficiency** • See table
- Isolation Voltage** • 1600 VDC
- Isolation Resistance** • 10⁹ Ω
- Isolation Capacitance** • 680 pF
- Switching Frequency** • 100-650 kHz
- MTBF** • >1.34 Mhrs to MIL-HDBK-217F at 25 °C, GB

Environmental

- Operating Temperature** • -40 °C to +70 °C, derate from 100% load at 70 °C to 0% load at 100 °C
- Storage Temperature** • -40 °C to +125 °C
- Case Temperature** • 100 °C max
- Cooling** • Convection cooled

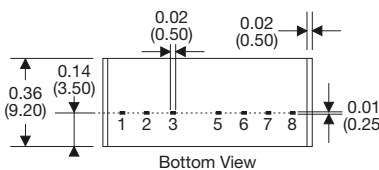
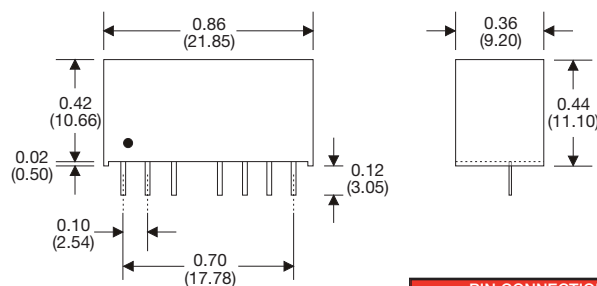
Notes

1. Measured at nominal input voltage.
2. For optional metal case, add suffix '-M' to model number. Outline as shown for mechanical envelope.
3. Minimum load of 25% required to meet quoted specifications.
4. Operation at no load will not damage the part but it may not meet all specifications.
5. Pin pitch tolerance: ± 0.014 (± 0.35)
6. Case tolerance: ± 0.02 (± 0.5)
7. Weight: SIP 0.009 lbs (3.9 g), DIP 0.013 lbs (5.9 g)
8. All dimensions in inches (mm)

Input Voltage	No Load ⁽¹⁾ Input Current	Output Voltage	Output Current	Efficiency	Max Capacitive Load	Model Number ⁽²⁾
4.5-9.0 V	65 mA	3.3 V	700 mA	74%	2200 μ F	IZ0503SA [†] [^]
	70 mA	5.0 V	600 mA	76%	1000 μ F	IZ0505SA [†] [^]
	75 mA	12.0 V	250 mA	82%	470 μ F	IZ0512SA [†] [^]
	75 mA	15.0 V	200 mA	82%	220 μ F	IZ0515SA [†] [^]
	90 mA	± 5.0 V	± 300 mA	77%	± 470 μ F	IZ0505S [†] [^]
	90 mA	± 12.0 V	± 125 mA	81%	± 220 μ F	IZ0512S [†] [^]
9.0-18.0 V	25 mA	3.3 V	700 mA	76%	2200 μ F	IZ1203SA [†] [^]
	15 mA	5.0 V	600 mA	81%	1000 μ F	IZ1205SA [†] [^]
	35 mA	12.0 V	250 mA	84%	470 μ F	IZ1212SA [†] [^]
	35 mA	15.0 V	200 mA	84%	220 μ F	IZ1215SA [†] [^]
	45 mA	± 5.0 V	± 300 mA	80%	± 470 μ F	IZ1205S [†] [^]
	45 mA	± 12.0 V	± 125 mA	83%	± 220 μ F	IZ1212S [†] [^]
18.0-36.0 V	15 mA	3.3 V	700 mA	74%	2200 μ F	IZ2403SA [†] [^]
	15 mA	5.0 V	600 mA	79%	1000 μ F	IZ2405SA [†] [^]
	20 mA	12.0 V	250 mA	82%	470 μ F	IZ2412SA [†] [^]
	20 mA	15.0 V	200 mA	84%	220 μ F	IZ2415SA [†] [^]
	20 mA	± 5.0 V	± 300 mA	80%	± 470 μ F	IZ2405S [†] [^]
	20 mA	± 12.0 V	± 125 mA	83%	± 220 μ F	IZ2412S [†] [^]
36.0-72.0 V	10 mA	3.3 V	700 mA	75%	2200 μ F	IZ4803SA [†] [^]
	10 mA	5.0 V	600 mA	78%	1000 μ F	IZ4805SA [†] [^]
	15 mA	12.0 V	250 mA	81%	470 μ F	IZ4812SA [†] [^]
	15 mA	15.0 V	200 mA	81%	220 μ F	IZ4815SA [†] [^]
	15 mA	± 5.0 V	± 300 mA	78%	± 470 μ F	IZ4805S [†] [^]
	20 mA	± 12.0 V	± 125 mA	80%	± 220 μ F	IZ4812S [†] [^]
	15 mA	± 15.0 V	± 100 mA	81%	± 100 μ F	IZ4815S [†] [^]

[†] Available from Farnell. See pages 266-269.
[^] Available from Newark. See pages 270-272.

Mechanical Details



PIN CONNECTIONS		
Pin	Single	Dual
1	-V Input	-V Input
2	+V Input	+V Input
3	Remote On/Off	Remote On/Off
5	N.C.	N.C.
6	+V Output	+V Output
7	-V Output	Common
8	NC	-V Output