

10 Watts

- Regulated Single & Dual Output
- Ultra Wide 4:1 Input Range
- DIP16 Package
- 1500 VDC Isolation
- Operating Temperature -40 °C to +88 °C
- Full Power to +70 °C
- ITE Safety Approvals
- High Power Density
- Metal Case
- 3 Year Warranty

Dimensions:

JTR10:

0.94 x 0.54 x 0.41" (23.8 x 13.7 x 10.2 mm)

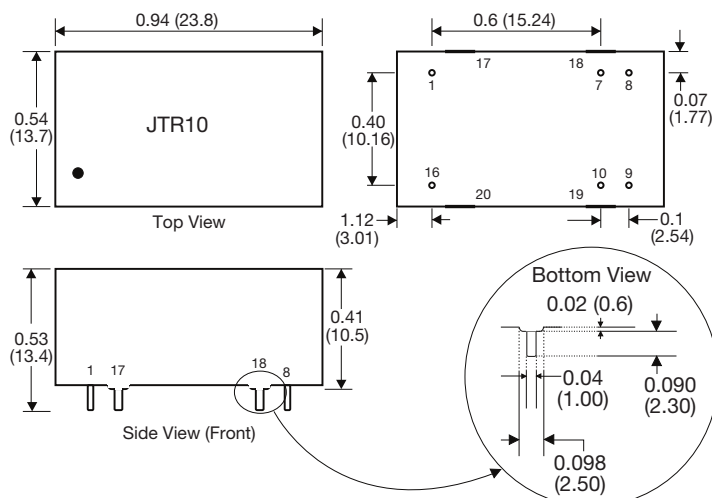
Models & Ratings

Input voltage	Output voltage	Output current		Input current ⁽¹⁾		Efficiency	Model number
		No load	Full load	No load	Full load		
9-36V	3.3 V	0 mA	2700 mA	10 mA	442 mA	80%	JTR1024S3V3
	5.0 V		2000 mA		451 mA	83%	JTR1024S05
	12.0 V		833 mA		642 mA	87%	JTR1024S12
	15.0 V		666 mA		693 mA	88%	JTR1024S15
	±12.0 V		±416 mA		297 mA	87%	JTR1024D12
	±15.0 V		±333 mA		363 mA	87%	JTR1024D15
18-75V	3.3 V	0 mA	2700 mA	7 mA	431 mA	80%	JTR1048S3V3
	5.0 V		2000 mA		585 mA	83%	JTR1048S05
	12.0 V		833 mA		736 mA	87%	JTR1048S12
	15.0 V		666 mA		802 mA	88%	JTR1048S15
	±12.0 V		±416 mA		834 mA	87%	JTR1048D12
	±15.0 V		±333 mA		864 mA	87%	JTR1048D15

Notes

1. Input currents measured at nominal input voltage.

Mechanical Details



Pin Connections

Pin	Single	Dual
1	-Vin	-Vin
7	Trim	No Connection
8	No Connection	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin
17	Case	Case
18	Stand Off	Stand Off
19	Case	Case
20	Stand Off	Stand Off

Notes

1. All dimensions are in inches (mm)
2. Weight: 0.0022 lbs (7.3 g) approx.

3. Tolerance: X.XX±0.01 (X.X±0.25), X.XXX±0.005 (X.XX±0.13)

4. Pin Tolerance: ±0.002 (±0.05)

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage Range	9.0		36	VDC	24 V nominal
	18.0		75	VDC	48 V nominal
Input Filter	Internal Pi type				
Undervoltage Lockout	ON at 8.5 V, OFF at 7.0 V				24 V models
	ON at 17.5 V, OFF at 16.0 V				48 V models
Input Surge			50	VDC	24 V models for 100 ms max
			100		48 V models for 100 ms max

Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Output Voltage	3.3		30	VDC	See Models and Ratings table
Initial Set Accuracy			±1.0	%	At full load
Output Voltage Balance			±1.0	%	For dual output with balanced loads
Minimum Load					No minimum load required
Line Regulation			±0.5	%	From minimum to maximum input at full load
Load Regulation			±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 500 µs for a 25% load change.
Ripple & Noise		60		mV pk-pk	3V3, 5V: 20 MHz bandwidth. Measured using 1 µF ceramic capacitor and 10 µF electrolytic capacitor
		80			Other models
Overload Protection		160		%	
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			88	%	See Models and Ratings table
Isolation: Input to Output	1500			VDC	60 s/1 s
Isolation Resistance	10 ⁹			Ω	At 500 VDC
Isolation Capacitance		1500		pF	
Switching Frequency		350		kHz	
Power Density			50.0	W/in ³	
Mean Time Between Failure		TBA		MHrs	MIL-HDBK-217F, +25 °C GB
Weight		0.0022 (7.3)		lb (g)	

Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating Temperature	-40		+88	°C	See Derating Curve.
Storage Temperature	-55		+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	EN55032	Class A	No filter required

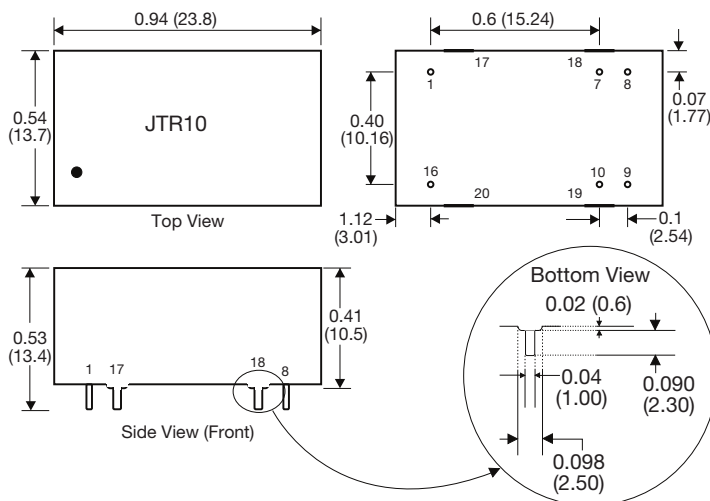
EMC: Immunity

Phenomenon	Standard	Test Level	Criteria	Notes & Conditions
ESD	EN61000-4-2	±8 kV air discharge, ±6 kV contact	A	
Radiated	EN61000-4-3	20 V/m	A	
EFT/Burst	EN61000-4-4	±2 kV	A	With external capacitor, suggested part is CHEMI-CON KY 330µF/100V. TBC.
Surge	EN61000-4-5	±1 kV	A	With external capacitor, suggested part is CHEMI-CON KY 330µF/100V. TBC.
Conducted	EN61000-4-6	10 V rms	A	
Magnetic Fields	EN61000-4-8	100 A/m	A	

Safety Approvals

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

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Application Notes

Derating Curve

