

JTF Series



- High Power Density
- Wide 4:1 Input Range
- Operating Temperature -40 °C to +105 °C
- Single & Dual Outputs
- Standard Remote On/Off
- 1600 VDC Isolation
- 3 Year Warranty

Specification

Input

Input Voltage Range	<ul style="list-style-type: none"> • 24 V (9-36 VDC) • 48 V (18-75 VDC)
Input Current	<ul style="list-style-type: none"> • See table
Input Filter	<ul style="list-style-type: none"> • Pi network
Input Reflected Ripple Current	<ul style="list-style-type: none"> • 20 mA pk-pk through 12 μH inductor and 47 μF capacitor, 5 Hz to 20 MHz
Input Surge	<ul style="list-style-type: none"> • 24 V models: 50 VDC for 1000 ms • 48 V models: 100 VDC for 1000 ms

Output

Output Voltage	<ul style="list-style-type: none"> • See table
Minimum Load	<ul style="list-style-type: none"> • No minimum load required
Initial Set Accuracy	<ul style="list-style-type: none"> • $\pm 1.2\%$ max
Start Up Delay	<ul style="list-style-type: none"> • 20 ms typical
Line Regulation	<ul style="list-style-type: none"> • $\pm 0.2\%$ max
Load Regulation	<ul style="list-style-type: none"> • $\pm 0.5\%$ max single, $\pm 1.0\%$ max dual
Cross Regulation	<ul style="list-style-type: none"> • $\pm 5\%$ on dual output models, see note 2
Transient Response	<ul style="list-style-type: none"> • $< 3\%$ max deviation, recovery to within 1% in 250 μs for a 25% load change
Ripple & Noise	<ul style="list-style-type: none"> • 75 mV pk-pk, 20 MHz bandwidth for 8 W versions, • 85 mV pk-pk, 20 MHz bandwidth for 10 W and 12 W versions, see note 3
Overload Protection	<ul style="list-style-type: none"> • 150% of full load typical for 8 W versions, 170% of full load typical for 10 W and 12 W versions
Overvoltage Protection	<ul style="list-style-type: none"> • 3.3 V models: 3.9 V typical • 5 V models: 6.2 V typical • 12 V models: 15 V typical • 15 V models: 18 V typical • ± 5 V models: ± 6.2 V typical • ± 12 V models: ± 15 V typical • ± 15 V models: ± 18 V typical
Short Circuit Protection	<ul style="list-style-type: none"> • Trip & restart (hiccup) with auto recovery
Maximum Capacitive Load	<ul style="list-style-type: none"> • See table
Temperature Coefficient	<ul style="list-style-type: none"> • $\pm 0.02/^\circ\text{C}$ max
Remote On/Off	<ul style="list-style-type: none"> • On > 3.0 VDC or open circuit • Off < 1.2 VDC or short circuit pins 1, 2 & 3

General

Efficiency	<ul style="list-style-type: none"> • See tables
Isolation	<ul style="list-style-type: none"> • 1600 VDC Input to Output • 1600 VDC Input to Case • 1600 VDC Output to Case
Isolation Capacitance	<ul style="list-style-type: none"> • 1500 pF max
Switching Frequency	<ul style="list-style-type: none"> • 270 kHz typical
MTBF	<ul style="list-style-type: none"> • > 1 Mhrs to MIL-HDBK-217F at 25 °C, GB

Environmental

Operating Temperature	<ul style="list-style-type: none"> • -40 °C to +105 °C, derate from 100% load at +60 °C to no load at +105 °C for 10 W and 12 W versions and from 100% load at 70 °C to no load at 105 °C for 8 W version
Case Temperature	<ul style="list-style-type: none"> • +105 °C max
Storage Temperature	<ul style="list-style-type: none"> • -40 °C to +125 °C
Humidity	<ul style="list-style-type: none"> • Up to 90%, non-condensing
Cooling	<ul style="list-style-type: none"> • Natural convection

EMC

Emissions	<ul style="list-style-type: none"> • EN55022 Class A conducted with external components - see application note
ESD Immunity	<ul style="list-style-type: none"> • EN61000-4-2, Level 3, Perf Criteria A
Radiated Immunity	<ul style="list-style-type: none"> • EN61000-4-3, 10 V/m Perf Criteria A
EFT/Burst	<ul style="list-style-type: none"> • EN61000-4-4, Level 3 Perf Criteria B*
Surge	<ul style="list-style-type: none"> • EN61000-4-5, Level 2 Perf Criteria B*
Conducted Immunity	<ul style="list-style-type: none"> • EN61000-4-6, 10 Vrms Perf Criteria A*
Magnetic Field	<ul style="list-style-type: none"> • EN61000-4-8, 1 A/m Perf Criteria A

*External input capacitor required, 330 μ F/100 V.

