FDC20-W

SINGLE AND DUAL OUTPUT, 4:1 WIDE INPUT RANGE 20 WATTS DC/DC CONVERTERS



FEATURES

- *4:1 INPUT RANGE*
- *PI INPUT FILTER*
- *2 YEAR WARRANTY*
- *HIGH EFFICIENCY*
- *LOW PROFILE CASE*
- *OVERVOLTAGE PROTECTION*
- *OVERCURRENT PROTECTION*
- *ON/OFF CONTROL*

ELECTRICAL SPECIFICATIONS

All specifications are typical at nominal input, full load, and 25˚C unless otherwise noted.

INPUT SPECIFICATIONS

Input Voltage Range 24V nominal.....9 to 36V
48V nominal.....18 to 72V
Input Filter.....PI Network

OUTPUT SPECIFICATIONS

Voltage Accuracy.....±2%
External Trim Adjustment Range...±10% typ.
Ripple and Noise, 20MHz BW
Single Output.....75mV P-P, 20m V RMS
Dual Output.....100mV P-P, 20m V RMS
Line Regulation, Full Line.....±0.5%
Load Regulation, FL-1/4FL.....±0.25% (Single)
±2% (Dual)
FL-NL.....±0.5% (Single)
±3% (Dual)
Temperature Coefficient.....±0.02%/˚C
Transient Response Recovery Time,
25% Load Step Change.....500µsec
Short Circuit Protection.....Continuous
Overvoltage Portection Threshold:
5V Output.....6.2V
12V Output.....15V
15V Output.....18V

REMOTE ON/OFF CONTROL

Control Voltage Referenced to Negative (-) Input
Compatability.....CMOS, TTL
On-Control.....4.8V min. or Open
Off-Control.....0.4V max. or Short

GENERAL SPECIFICATIONS

Switching Frequency.....300kHz, typ.
Isolation Voltage.....1600VDC, min
Isolation Resistance.....10^9 Ohms , min

ENVIRONMENTAL SPECIFICATIONS

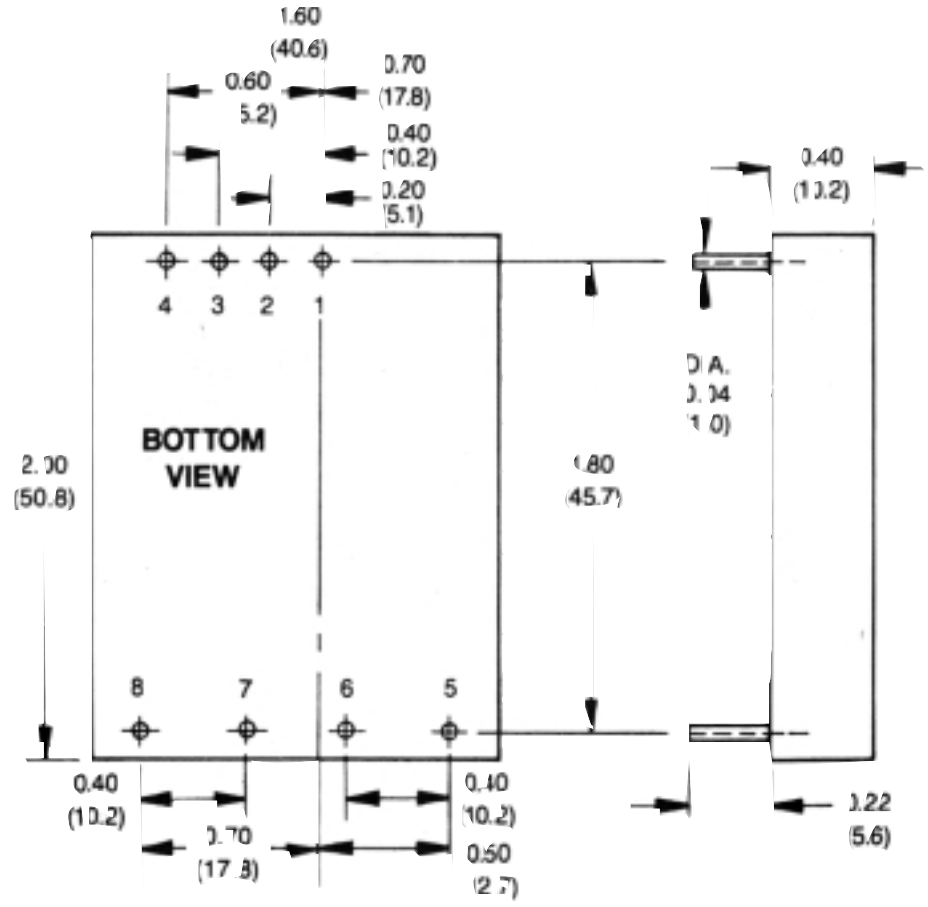
Operating Temperature Range.....-25˚C to +60˚C (See Fig.1)
Alternative Operating Temperature Suffix “M2”
.....-40˚C to +60˚C
Storage Temperature Range.....-55˚C to +125˚C
Cooling.....Free-air Convection
EMI/RFI.....Six-sided Continuous Shield
MTBF.....4.270x10^5Hours
(MIL-HDBK-217F TA=25˚C Full Load)

PHYSICAL SPECIFICATIONS

Case Material.....Nickel-Coated Copper with Non-Conductive Base
Dimensions.....2.0x1.6x0.4 Inches (50.8x40.6x10.2 mm)

Series

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	% typ. EFF
FDC20-24S05W	9-36VDC	5VDC	4000mA	79
FDC20-24S12W	9-36VDC	12VDC	1670mA	81
FDC20-24S15W	9-36VDC	15VDC	1330mA	81
FDC20-24D05W	9-36VDC	± 5VDC	±2000mA	79
FDC20-24D12W	9-36VDC	±12VDC	± 833mA	81
FDC20-24D15W	9-36VDC	±15VDC	± 666mA	82
FDC20-48S05W	18-72VDC	5VDC	4000mA	80
FDC20-48S12W	18-72VDC	12VDC	1670mA	81
FDC20-48S15W	18-72VDC	15VDC	1330mA	81
FDC20-48D05W	18-72VDC	± 5VDC	±2000mA	79
FDC20-48D12W	18-72VDC	±12VDC	± 833mA	83
FDC20-48D15W	18-72VDC	±15VDC	± 666mA	84



Pin Connections

Pin#	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	No Pin	No Pin
4	Ctrl	Ctrl
5	No Pin	+Vout
6	+Vout	Common
7	-Vout	-Vout
8	Trim	Trim

ALL DIMENSIONS IN INCHES (mm)
PIN PITCH TOLERANCE ±0.5 mm