FDC15 Series

15 WATT DC/DC CONVERTER, SINGLE & DUAL OUTPUTS

FEATURES

- *15 WATT OUTPUT POWER*
- *4 : 1 INPUT VOLTAGE RANGE*
- *EXTREMELY RELIABLE*
- *SIX SIDED CONTINOUS SHIELD*
- *HIGH EFFICIENCY UP TO 82%*
- *SHORT CIRCUIT PROTECTION*
- *DIRECT PCB-SOLDERING*
- *INDUSTRY STANDARD 2 X 1.6 X.04 PACKAGE*
- *INTERNATIONAL SAFETY STANDARD*

APPROVALS

SAFETIES/APPROVALS

UL, TUV, CE
UL1950
EN60950

ELECTRICAL SPECIFICATIONS

All specifications are typical at nominal input, full load

INPUT SPECIFICATIONS

Input Voltage Range.....4 : 1
Input Filter..... PI-Network

OUTPUT SPECIFICATIONS

Output Voltage Accuracy..... ..... ±2
Voltage Adjustability……..±10%
Minimum Load……±10%
Efficiency.....Up to 82%
Over-Current Protection.....150% max
Ripple .....75Vp-p (20Mhz Bandwidth)
Line Regulation.....±0.5%
Line Filter..... Built-in
Load Regulation…….....**Single output**: ±1%
Dual output: ±5%
(Load Rate 10% ~ 100%)

GENERAL SPECIFICATIONS

Isolation Voltage……...1600VDC min
MTBF..... >2.041 x 10^{6} hours
Isolation Resistance.....10^{9}ohms min
Isolation Capacitance……300pF
Switching Frequency…….270Khz typical

GENERAL SPECIFICATIONS

Operating Temperature .....-40°C ~ +85°C
Temperature Coefficient.....±0.05%/ °C
Humidity..... 5%~95% RH
Storage Temperature..... -55°C ~ +105°C

PHYSICAL SPECIFICATIONS

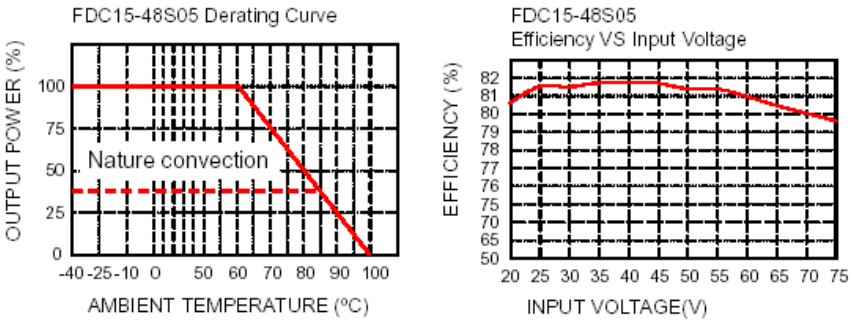
Case Material.....Nickel-Coated Copper
Base Material.....Non-Conductive Black Plastic

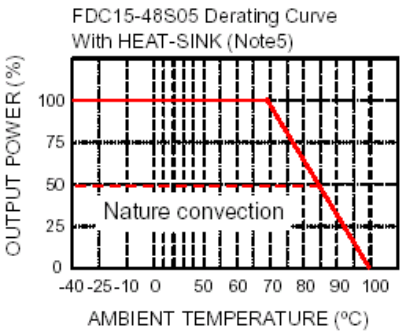
MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT
FDC15-24S05	24VDC (9 – 36V)	5VDC	3000mA
FDC15-24S12		12VDC	1250mA
FDC15-24S15		48VDC	1000mA
FDC15-24D05		±5VDC	±1500mA
FDC15-24D12		±12VDC	±625mA
FDC15-24D15		±15VDC	±500mA
FDC15-48S05	48VDC (18 - 75)	5VDC	3000mA
FDC15-48S12		12VDC	1250mA
FDC15-48S15		48VDC	1000mA
FDC15-48D05		±5VDC	±1500mA
FDC15-48D12		±12VDC	±625mA
FDC15-48D15		±15VDC	±500mA

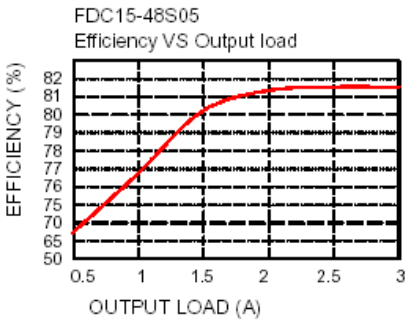
Note

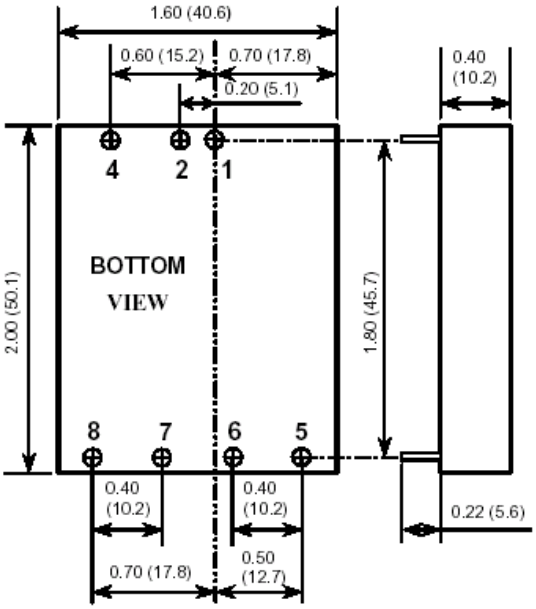
1. The FDC15 series required a minimum 10% loading on the output to maintain specified regulation. Operation under no-load condition will not damage these devices, however they may not meet all listed specification.
2. Simulated source impedance of 12uH. 12uH inductor in series with +Vin.
3. The ON/OFF control voltage is reference to negative input.
4. BELLCORE TR-NWT-000332. Case I: 50% Stress, Temperature at 40°C. (Ground fixed and controlled environment).
5. Heat-sink option, Thermal impedance is 8.24°C/Watt for natural convection and the P/N is 7G-0011A.
6. Maximum value at nominal input voltage and full load.
7. Typical value at nominal input voltage and full load.
8. Test by minimum Vin and constant resistor load.

PIN CONNECTION		
PIN	SINGLE OUTPUT	DUAL OUTPUT
1	+ INPUT	+ INPUT
2	- INPUT	- INPUT
4	CTRL	CTRL
5	NO PIN	+ OUTPUT
6	+ OUTPUT	COMMON
7	- OUTPUT	- OUTPUT
8	TRIM	TRIM









1. All dimensions in Inches (mm)
2. Pin pitch tolerance ±0.014(0.35)

EXTERNAL OUTPUT TRIMMING

Output can be externally trimmed by using the method shown below.
( ) for dual output trim