

# FDD05 SERIES



DC - DC CONVERTER  
5 ~ 6W 5V INPUT MODEL

## FEATURES

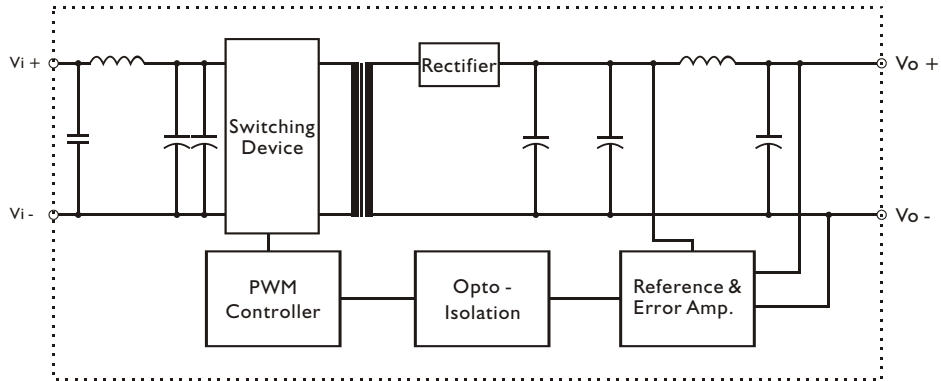
- INPUT 4.5 V ~ 5.5 V
- INPUT FILTER BUILT - IN
- I/O ISOLATION
- HIGH EFFICIENCY UP TO 81 %
- SHORT CIRCUIT PROTECTION
- 2 " x 2 " METAL CASE
- 2 YEARS WARRANTY

## MODEL LIST

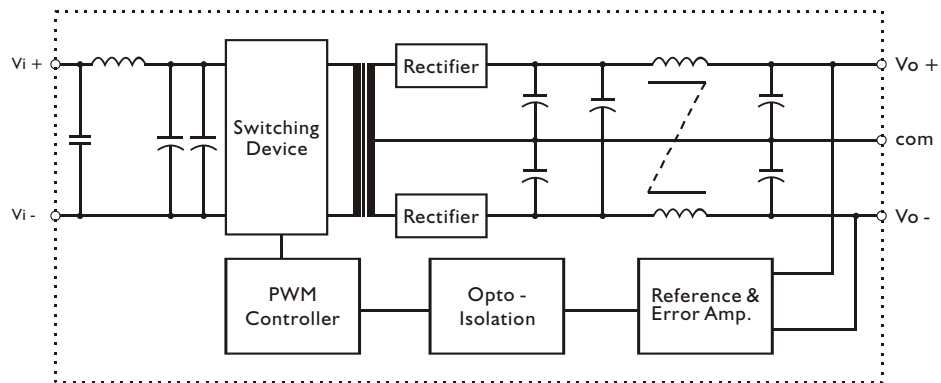
MODEL NO.	INPUT VOLTAGE	OUTPUT WATTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFF. (min.)
Single Output Models					
FDD05 - 05S0	4.5~5.5 VDC	5 WATTS	+ 5 VDC	1000 mA	75%
FDD05 - 12S0	4.5~5.5 VDC	6 WATTS	+ 12 VDC	500 mA	80%
FDD05 - 15S0	4.5~5.5 VDC	6 WATTS	+ 15 VDC	400 mA	81%
Dual Output Models					
FDD05 - 05D0	4.5~5.5 VDC	5 WATTS	± 5 VDC	± 500 mA	75%
FDD05 - 12D0	4.5~5.5 VDC	6 WATTS	± 12 VDC	± 250 mA	80%
FDD05 - 15D0	4.5~5.5 VDC	6 WATTS	± 15 VDC	± 200 mA	81%

### CIRCUIT SCHEMATIC

- Block diagram for FDD05 5V input model with single output



- Block diagram for FDD05 5V input model with dual output



### SPECIFICATION

All Specifications Typical At Nominal Line, Full Load, 25°C Unless Otherwise Noticed

#### GENERAL

Characteristics	Conditions	min.	typ.	max.	unit
Switching frequency	Vi nom, Io nom		200		KHz
Isolation voltage	Input / Output	1,500			VDC
Isolation resistance	Input / Output, @ 500VDC	100			MΩ
Ambient temperature	Operating at Vi nom, Io nom	-25		+ 71	°C
Case temperature	Operating at Vi nom, Io nom			+100	°C
Derating	Vi nom	See derating curve			% / °C
Storage temperature	Non operational	-40		+100	°C
Dimension	L50.8 x W50.8 x H11.9				mm
Cooling	Free air convection				
Case material	Metal				

#### INPUT SPECIFICATIONS

Characteristics	Conditions	min.	typ.	max.	unit
Input voltage range	Tamin ... Ta max, Io nom	4.5	5	5.5	VDC
No load input current	Vi nom, Io = 0		15		mA
Input voltage w/o damage	Io nom			7	VDC
Startup voltage	Io nom		4		VDC
Input filter	Pi type				

#### OUTPUT SPECIFICATIONS

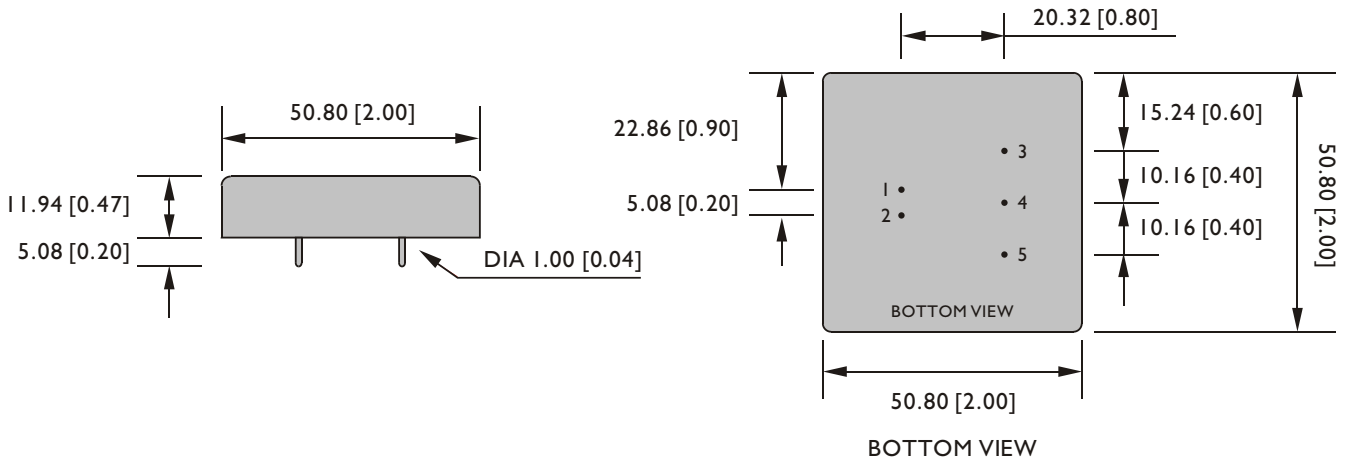
Characteristics	Conditions	min.	typ.	max.	unit
Output voltage accuracy	Vi nom, Io nom			± 2	%
Minimum load	Vi nom single output models	0			%
	Vi nom dual output models (each output)	20			%
Line regulation	Io nom, Vi min ... Vi max			± 1	%
Load regulation	Vi nom, Io 0 ... Io nom, for single output models			± 2	%
	Vi nom, Io min ... Io nom, for dual output models			± 5	%
Transient recovery time	Vi nom, Io nom ... 1/2 Io nom		500		μs
Temperature coefficient	Vi nom, Io nom			± 0.02	% / °C
Ripple & noise	Vi nom, Io nom, BW = 20MHz			100	mV
Efficiency	Vi nom, Io nom, Po / Pi	Up to 81%, See model list			

#### CONTROL AND PROTECTION

Input reversed	Shunt diode built in, external fuse recommended
Output short circuit	Continuous

### MECHANISM & PIN CONFIGURATION

mm [inch]



### PHYSICAL CHARACTERISTICS

CASE SIZE	50.8 x 50.8 x 11.9 mm 2 x 2 x 0.47 inches
CASE MATERIAL	Metal
WEIGHT	65 g (typ.)

### PIN ASSIGNMENT

GENERAL					
PIN NO.	1	2	3	4	5
SINGLE	Vi+	Vi-	Vo+	NO PIN	Vo-
DUAL	Vi+	Vi-	Vo+	com	Vo-

### DERATING

