

FDD01 SERIES



DC - DC CONVERTER
1W SINGLE & DUAL OUTPUT

FEATURES

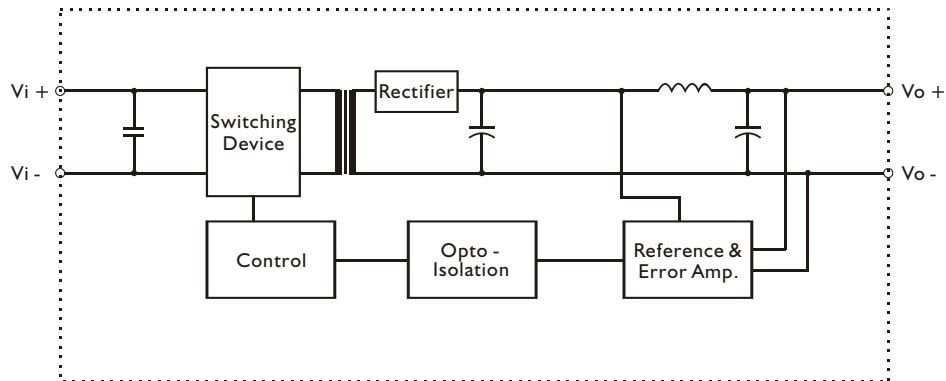
- LOW COST
- INPUT $5\text{ V} \pm 10\%$
- DIP24 PACKAGE
- 1 / 0 ISOLATION
- SHORT CIRCUIT PROTECTION
- 2 YEARS WARRANTY

MODEL LIST

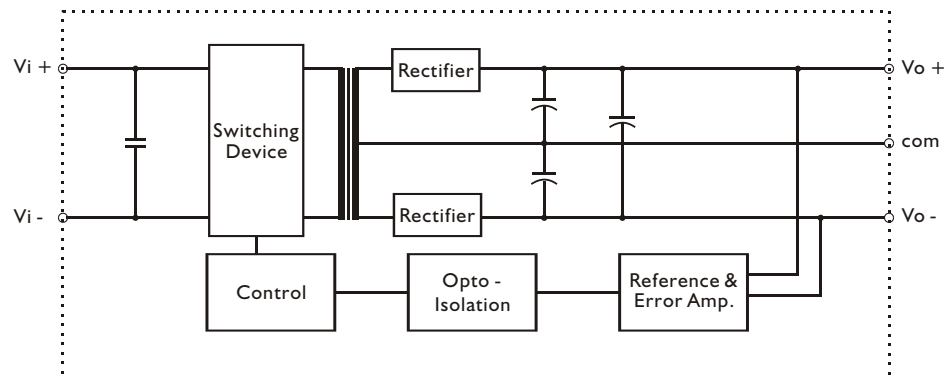
MODEL NO.	INPUT VOLTAGE	OUTPUT WATTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFF. (min.)
Single Output Models					
FDD01 - 05S0	4.5~5.5 VDC	1 WATT	+ 5 VDC	200 mA	53%
FDD01 - 12S0	4.5~5.5 VDC	1 WATT	+ 12 VDC	84 mA	58%
FDD01 - 15S0	4.5~5.5 VDC	1 WATT	+ 15 VDC	66 mA	58%
Dual Output Models					
FDD01 - 05D0	4.5~5.5 VDC	1 WATT	$\pm 5\text{ VDC}$	$\pm 100\text{ mA}$	53%
FDD01 - 12D0	4.5~5.5 VDC	1 WATT	$\pm 12\text{ VDC}$	$\pm 42\text{ mA}$	58%
FDD01 - 15D0	4.5~5.5 VDC	1 WATT	$\pm 15\text{ VDC}$	$\pm 33\text{ mA}$	58%

CIRCUIT SCHEMATIC

- Block diagram for FDD01 series with single output



- Block diagram for FDD01 series 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	50			KHz
Isolation voltage	Input / Output	1,500			VDC
Isolation resistance	Input / Output, @ 500VDC	1G			Ω
Ambient temperature	Operating at Vi nom, Io nom	-25		+ 71	°C
Case temperature	Operating at Vi nom, Io nom			+ 90	°C
Derating	Vi nom	See derating curve			% / °C
Storage temperature	Non operational	-40		+ 100	°C
Dimension	L20.3 x W31.8 x H12.7				mm
Cooling	Free air convection				
Case material	Plastic				

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			65	mA
Input voltage w/o damage	Io nom			7	VDC

OUTPUT SPECIFICATIONS

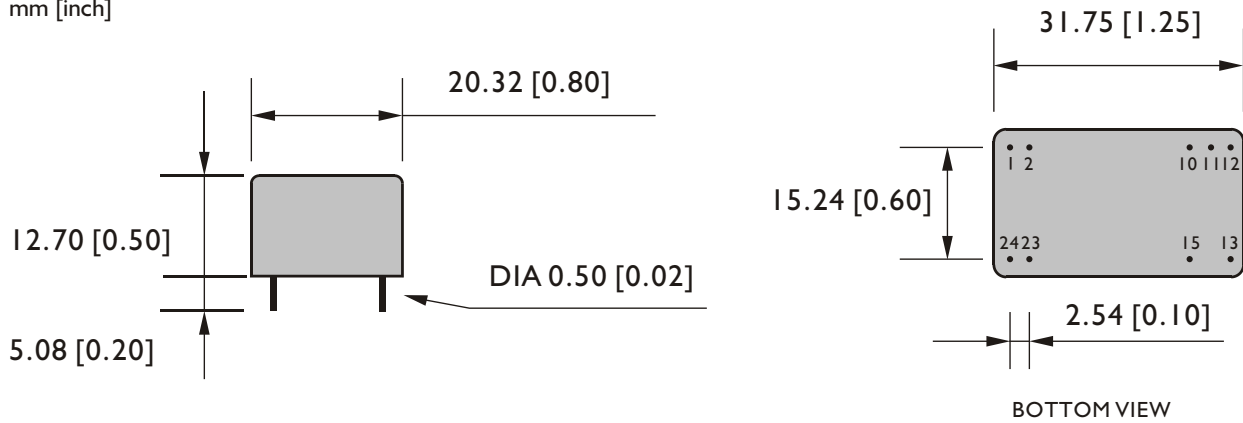
Characteristics	Conditions	min.	typ.	max.	unit
Output voltage accuracy	Vi nom, Io nom			± 2	%
Minimum load	Vi nom single output models	0			%
	dual output models (each output)	20			%
Line regulation	Io nom, Vi min ...Vi max			± 1	%
Load regulation	Vi nom, Io 0 ...Io nom, single output models			± 2	%
	Vi nom, Io min ...Io nom, dual output models			± 3	%
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 58%, 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	20.3 x 31.8 x 12.7 mm 0.8 x 1.25 x 0.5 inches
CASE MATERIAL	Plastic
WEIGHT	15 g

PIN ASSIGNMENT

GENERAL							
PIN NO.	I&2	I0	I1	I2	I3	I5	23&24
SINGLE	Vi+	NO PIN	NO PIN	Vo-	Vo+	NO PIN	Vi-
DUAL	Vi+	com	com	NO PIN	Vo-	Vo+	Vi-

DERATING