

## FD80V10AS1 DC-DC Converter Input Filters

## Input 0V-80V, 10Amps, SMT Mount

#### **Features**

RoHS lead free solder and lead solder exempted products are available

Maximum current 10A with no derating

Maximum operating input voltage 80V

Operation over -40 °C to 85 °C ambient

temperature range

No airflow required up to 85 °C

100 V 100 ms transient withstand capability

Differential LC-filter stage

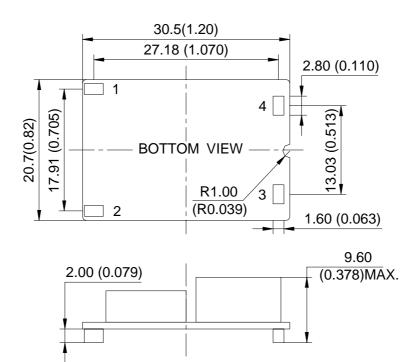
Surface mounted design

Small footprint – less than 1 sq. in.





#### **Outline Diagram**



Notes: all dimensions in mm(inches)

Tolerances:x.x mm:  $\pm 0.5$ mm (x.xx in. $\pm 0.02$ in.)

 $x.xx mm : \pm 0.25mm (x.xxx in. \pm 0.010in.)$ 

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Pin	Symbol	Function
1	+Vin	Positive Input
2	-Vin	Negative Input
3	-V <sub>O</sub>	Negative Output
4	$+V_{O}$	Positive Output

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## **Specification**

Conditions: TA = 25 °C, No Airflow, Vin = 48 V, unless otherwise specified.

General	Symbol	Min	Тур	Max	Unit	Conditions	
Absolute Maximum Ratings							
Input Voltage Continuous	_	0	_	100	V	Continuous	
Operating Ambient Temperature	_	-40	_	85	°C		
Storage Temperature	_	-55		125	°C		

General	Symbol	Min	Тур	Max	Unit	Conditions
Operating Input Voltage Range	Vo	0	48	80	V	
Operating Current	$I_{O}$	0	_	10	A	85 °C ambient, no airflow
DC Resistance (total for two legs)	_	_	0.016		Ω	
Filter differential inductance	_	_	4.7		μН	
Filter common mode inductance	_	6.5	_	_	μН	For frequencies below 10 MHz
Differential mode Attenuation at 400 kHz	_	_	57		dB	
Differential mode attenuation at 30 MHz	_	_	56		dB	
Common mode Attenuation at 400 kHz	_	_	24		dB	
Common mode Attenuation at 30 MHz	_	_	50	_	dB	
Efficiency	η	99.6	99.7	_	%	Vin = 48V @ 10 A

#### **Additional Notes:**

 $50~\Omega$  source and  $50~\Omega$  load impedance.

50  $\Omega$  source and 50  $\Omega$  load impedance; external common-mode capacitors 0.1  $\mu F$  (from IN+ and IN- to the common chassis).

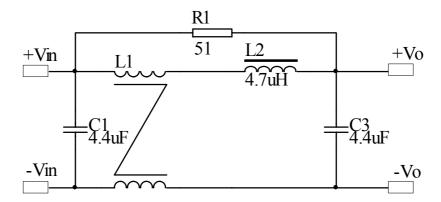
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#### **Basic Connection**



Notes: The basic connection indicates the basic requirements that the power module can provide rated output voltage and rated power only. Please refer the instruction followed for further information.

#### **Quality Statement**

The converters are manufactured in accordance with ISO 9001 system requirements, in compliant with YD/T1376-2005, and are monitored 100% by auto-testing system.

The warranty for the converters is 5-years.

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