

FD80V4AS1 DC-DC Converter Input Filters

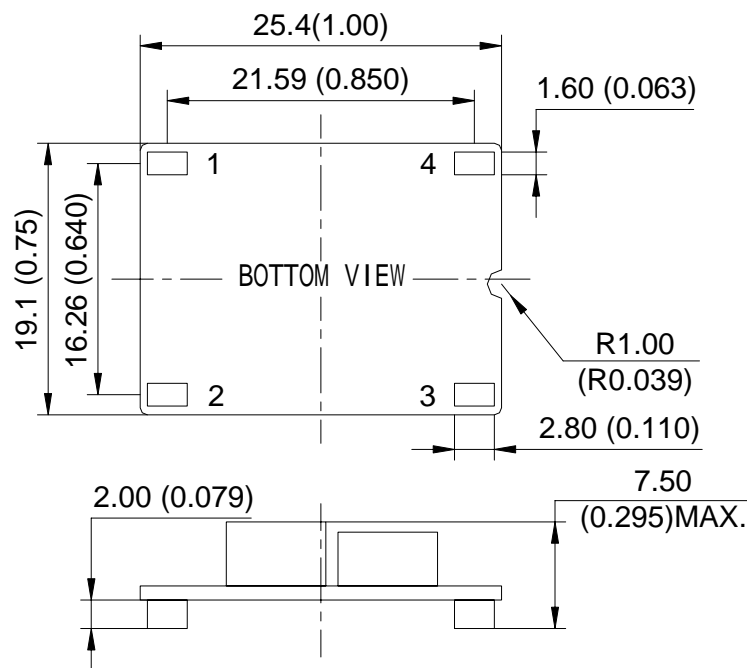
Input 0V-80V, 4Amps, SMT Mount

Features

- RoHS lead free solder and lead solder exempted products are available
- Maximum current 4 A with no derating
- Maximum operating input voltage 80 V
- 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 – only 0.75 sq. in.



Outline Diagram



Notes:all dimensions in mm(inches)

Tolerances:x.x mm : ±0.5mm (x.xx in.±0.02in.)

x.xx mm : ±0.25mm (x.xxx in.±0.010in.)

| Pin | Symbol | Function |
|-----|--------|-----------------|
| 1 | +Vin | Positive Input |
| 2 | -Vin | Negative Input |
| 3 | -Vo | Negative Output |
| 4 | +Vo | Positive Output |

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Specification

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

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

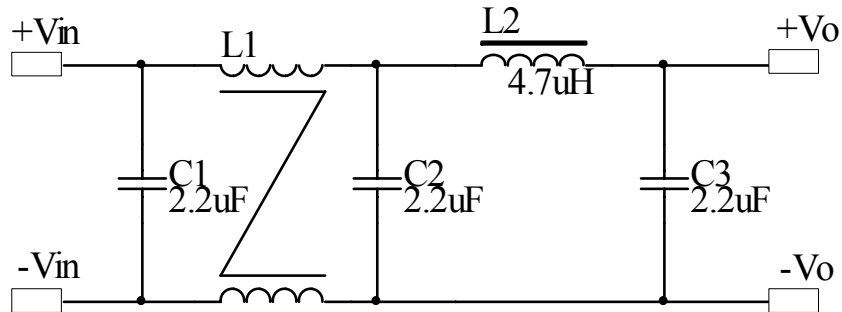
| General | Symbol | Min | Typ | Max | Unit | Conditions |
|---|----------------|------|------|-----|------|------------------------------|
| Operating Input Voltage Range | V _O | 0 | 48 | 80 | V | — |
| Operating Current | I _O | 0 | — | 4 | A | 85 °C ambient, no airflow |
| DC Resistance (total for two legs) | — | — | 0.07 | — | Ω | — |
| Filter differential inductance | — | — | 4.7 | — | μH | — |
| Filter common mode inductance | — | — | 60 | — | μH | For frequencies below 10 MHz |
| Differential mode Attenuation at 400 kHz | — | — | 35 | — | dB | — |
| Differential mode attenuation at 30 MHz | — | — | 56 | — | dB | — |
| Common mode Attenuation at 400 kHz | — | — | 50 | — | dB | — |
| Common mode Attenuation at 30 MHz | — | — | 60 | — | dB | — |
| Efficiency | η | 99.2 | 99.4 | — | % | Vin = 48V @ 4 A |

Additional Notes:

50 Ω source and 50 Ω load impedance.

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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.