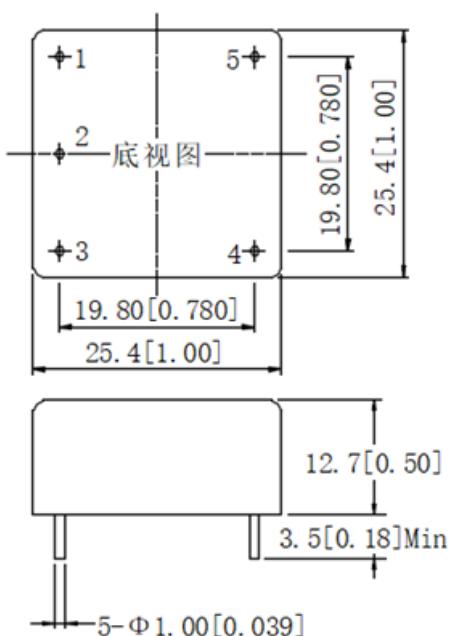


**TFC24BA10 EMI INPUT FILTER****0V~50V Input Voltage 10A Output Current Metal Case****Contents**

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**Features**

- ◆ Standard size 25.4mm×25.4mm×12.7mm
- ◆ Up to 10A output current
- ◆ Up to 50V permanent input voltage.
- ◆ Attenuation to 50 DB at 300 kHz,  
Common Mode, typical
- ◆ Attenuation to 60 DB at 300 kHz,  
Differential Mode, typical
- ◆ Typical Resistance 15mΩ
- ◆ 1000Vdc Isolation Voltage
- ◆ Operation Case Temperature  
-40 °C~+100 °C
- ◆ Warranty 5 years

**Outline Diagram**

| Pin | Symbol | Function        |
|-----|--------|-----------------|
| 1   | Vin+   | Positive Input  |
| 2   | GND    | Case (FG)       |
| 3   | Vin-   | Negative Input  |
| 4   | Vo-    | Negative Output |
| 5   | Vo+    | Positive Output |

## Notes:

Case material : Aluminum shell black plastic cover

Pin : Copper.

All dimensions in mm(inches)

Tolerances:X.X±0.5mm(X.XX±0.02)

X.XX±0.25mm(X.XXX±0.010)

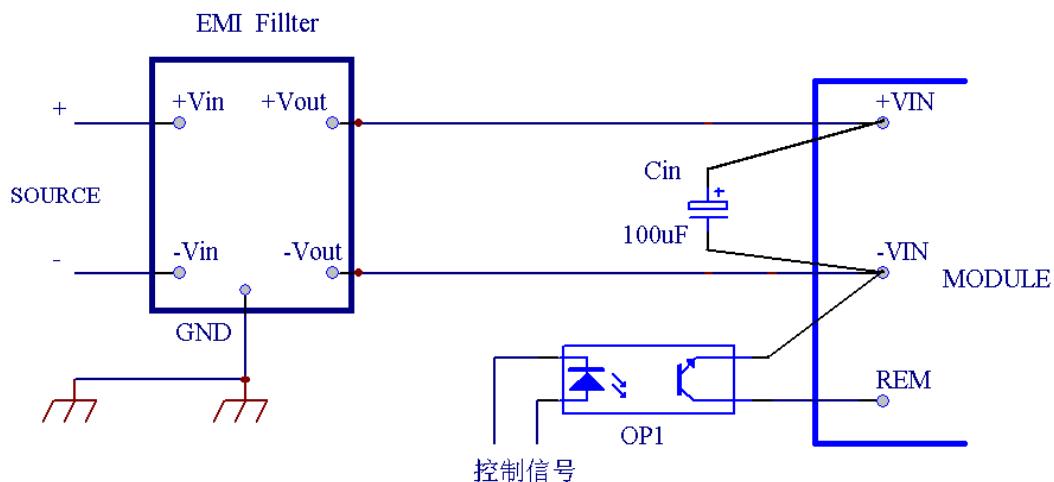
**TFC24BA10 EMI INPUT FILTER****0V~50V Input Voltage 10A Output Current Metal Case****Specification**

Unless otherwise specified, all values are given at: 25°C, one standard atmosphere pressure, pure resistive load and basic connection.

| PARAMETER                  | Symbol               | Min | Typ. | Max | Unit | Conditions                        |
|----------------------------|----------------------|-----|------|-----|------|-----------------------------------|
| Input Voltage              | V <sub>in</sub>      | 0   | —    | 50  | V    | —                                 |
| Output Current             | I <sub>in, max</sub> | —   | —    | 10  | A    | Operation Case Temperature 105 °C |
| Attenuation                | I.L <sub>cm</sub>    | —   | 60   | —   | dB   | 300kHz,Differential Mode, typical |
| Attenuation                | I.L <sub>cm</sub>    | —   | 50   | —   | dB   | 300kHz,Common Mode, typical       |
| Typical Resistance         | R <sub>dc</sub>      | —   | 7.5  | —   | mΩ   | Vin to Vo                         |
| Isolation Voltage          | V <sub>iso</sub>     | —   | 1000 | —   | V    | GND to Case, 5mA                  |
| Operation Case Temperature | T <sub>c</sub>       | -45 | —    | 100 | °C   | —                                 |
| Storage Temperature        | T <sub>st</sub>      | -55 | —    | 125 | °C   | —                                 |
| Relative Humidity          | —                    | —   | —    | 90  | %RH  | Frost free                        |

**Design Considerations**

The filter can be used in DC/DC converters. In order to exceed the EMI requirements, it is recommended to use the filter in series up front as shown in the following figure. For better EMI performance and stability purpose the product recommends to use a Cin capacitor. Two filters can be connected in series for a higher request.

**Contact Information**

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