

# SC15A Series



## DC/DC

## 15 Watts

Single/Dual Outputs

- Industry standard form factor 2 x 1 x 0.40
- Three input voltage ranges  
9-18 Vdc  
18-36 Vdc  
36-75 Vdc
- Remote shutdown
- 400kHz switching frequency
- Continuous short circuit protection
- Six-sided shielding
- UL1950, cUL, EN60950

## Specifications

### INPUT

|                            |  |
|----------------------------|--|
| Voltage Range              | 9-18 Vdc<br>18-36 Vdc<br>36-75 Vdc                 |
| Reverse Polarity Protected | To Nominal Input Current<br>External Fuse Required |
| Remote On/Off Control      | Optional   |

### OUTPUT

|                          |                        |
|--------------------------|------------------------|
| Voltage Tolerance        | ± 1%                   |
| Ripple and Noise         | 50mV pk-pk (typ)       |
| Short Circuit Protection | Continuous Power Cycle |
| Temperature Coefficient  | .02% / °C              |

### GENERAL

|                     |                                |
|---------------------|--------------------------------|
| Regulation:         |                                |
| Line                | 0.25%                          |
| Load                | 0.5% (singles)<br>1.0% (duals) |
| Switching Frequency | 400 kHz (±10%)                 |
| Efficiency          | 80-85% (typ)                   |
| I/O Isolation       | 1500 Vdc                       |

### ENVIRONMENTAL

|                       |                     |
|-----------------------|---------------------|
| Operating Temperature | -40°C to +60°C      |
| Max Baseplate Temp    | 105°C               |
| Storage Temperature   | -55°C to +105°C     |
| Cooling               | Free-air Convection |

All specifications are typical at nominal line and full load at 25°C unless otherwise noted and are subject to change without notice.

The SC15A series of cost sensitive single and dual output 15 watt DC/DC converters are specifically designed for critical applications requiring a compact, low profile case.

These high performance 15 watt converters offer a high switching frequency topology, 1500 Vdc I/O isolation, and efficiencies to 85%.

Twenty-one models available. Three input voltage ranges of 9-18 Vdc, 18-36 Vdc and 36-75 Vdc provide regulated outputs of 3.3, 5, 12, 15 and ±5, ±12 and ±15 Vdc.

## Applications

These units are ideally suited for telecommunications, distributed power systems, automatic test equipment, medical and process control.

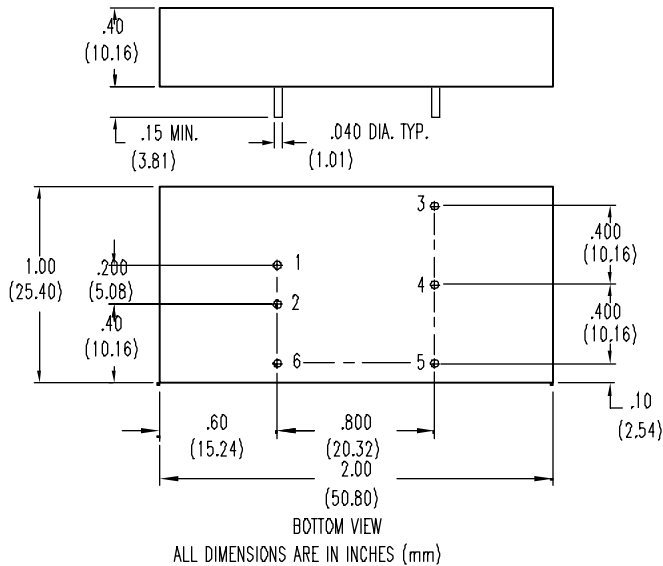


**SEMICONDUCTOR  
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# SC15A Series Ordering Information

| Input Voltage Range | Output Voltage | Output Current | Model Number   |
|---------------------|----------------|----------------|----------------|
| 9-18 Vdc            | 3.3 Vdc        | 3000mA         | SC15A17-300-12 |
| 9-18 Vdc            | 5 Vdc          | 3000mA         | SC15A11-300-12 |
| 9-18 Vdc            | 12 Vdc         | 1250mA         | SC15A12-125-12 |
| 9-18 Vdc            | 15 Vdc         | 1000mA         | SC15A13-100-12 |
| 9-18 Vdc            | ±5 Vdc         | ±1500mA        | SC15A21-300-12 |
| 9-18 Vdc            | ±12 Vdc        | ±625mA         | SC15A22-125-12 |
| 9-18 Vdc            | ±15 Vdc        | ±500mA         | SC15A23-100-12 |
| 18-36 Vdc           | 3.3 Vdc        | 3000mA         | SC15A17-300-24 |
| 18-36 Vdc           | 5 Vdc          | 3000mA         | SC15A11-300-24 |
| 18-36 Vdc           | 12 Vdc         | 1250mA         | SC15A12-125-24 |
| 18-36 Vdc           | 15 Vdc         | 1000mA         | SC15A13-100-24 |
| 18-36 Vdc           | ±5 Vdc         | ±1500mA        | SC15A21-300-24 |
| 18-36 Vdc           | ±12 Vdc        | ±625mA         | SC15A22-125-24 |
| 18-36 Vdc           | ±15Vdc         | ±500mA         | SC15A23-100-24 |
| 36-75Vdc            | 3.3 Vdc        | 3000mA         | SC15A17-300-48 |
| 36-75Vdc            | 5 Vdc          | 3000mA         | SC15A11-300-48 |
| 36-75Vdc            | 12 Vdc         | 1250mA         | SC15A12-125-48 |
| 36-75Vdc            | 15 Vdc         | 1000mA         | SC15A13-100-48 |
| 36-75Vdc            | ±5 Vdc         | ±1500mA        | SC15A21-300-48 |
| 36-75Vdc            | ±12 Vdc        | ±625mA         | SC15A22-125-48 |
| 36-75Vdc            | ±15Vdc         | ±500mA         | SC15A23-100-48 |



## Dimensions and Connections

### NOTES:

1. Ripple measured with a 3.3 mf tantalum capacitor across each output.
2. Minimum load 10% of full load. Load regulation from full load to minimum load.
3. The SC15A series requires an external filter capacitor across the input valued at 2.2µF @ 100Vdc such as ITW/Paktron part# 225k100RA4 or equiv.
4. Case connected to pin #1 on -48 models. Case connected to pin #2 on -12 and -24 models

For Optional Remote On/Off add suffix "E"  
(i.e. SC15A11-300-48E)

Remote ON/Off Control (pin 6) common referenced to - Input (pin 2).

On greater than 2.5 Vdc or open circuit  
Off less than 0.8 Vdc

### PIN CONNECTIONS

#### Single Output

1. +Input
2. -Input
3. +Output
4. No Pin
5. Common
6. Remote On/Off

### PIN CONNECTIONS

#### Dual Outputs

1. +Input
2. -Input
3. +Output
4. Common
5. -Output
6. Remote On/Off

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