

# SC125A Series



## DC/DC

### 125 Watts

Single Outputs

- Wide input range  
18-36 Vdc  
36-76 Vdc
- Remote shutdown
- Open frame 1/2 brick
- 2800 Vdc I/O isolation
- Remote Sense
- Industry Standard footprint
- Efficiencies >93%
- UL1950 Recognition (Pending)

## Specifications

### INPUT

Voltage Range	18-36 Vdc 36-76 Vdc
Filtering	All Models
Reverse Polarity Protected	To Nominal Input Current External Fuse Required
Remote On/Off Control	All Models

### OUTPUT

Voltage Tolerance	± 1%
	± 1.5% (3.3 Vdc)
Ripple and Noise	100mV pk-pk (20 MHz BW)
Short Circuit Protection	Continuous Power Cycle
Temperature Coefficient	0.02% / °C

### GENERAL

Regulation:	
Line	0.20%
Load	0.50%
Efficiency	94% (typ)
I/O Isolation	2800 Vdc
Switching Frequency	200kHz (typ)

### ENVIRONMENTAL

Operating Temperature	Fully specified from -40°C to +60°C
Max hotspot temp range	-40°C to +110°C
Storage Temperature	-55°C to +105°C
Theta <sub>HS-A</sub>	12.8°C/W

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

The SC125A Series operate over a wide input range of 36-76 Vdc. Efficiencies greater than 93% over the entire input range are typical. Additional features include higher ambient operating temperatures, reduced airflow requirements, excellent regulation and transient response characteristics. Single board package with industry standard footprint. Designed for through hole mounting.

### Applications

These units are ideally suited for telecommunications mobile/optical switches, high capacity network routers, systems requiring distributed power architecture and high isolation.



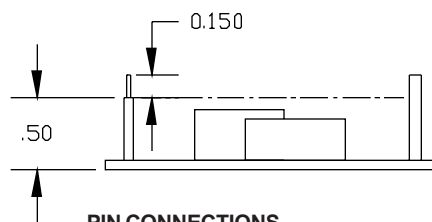
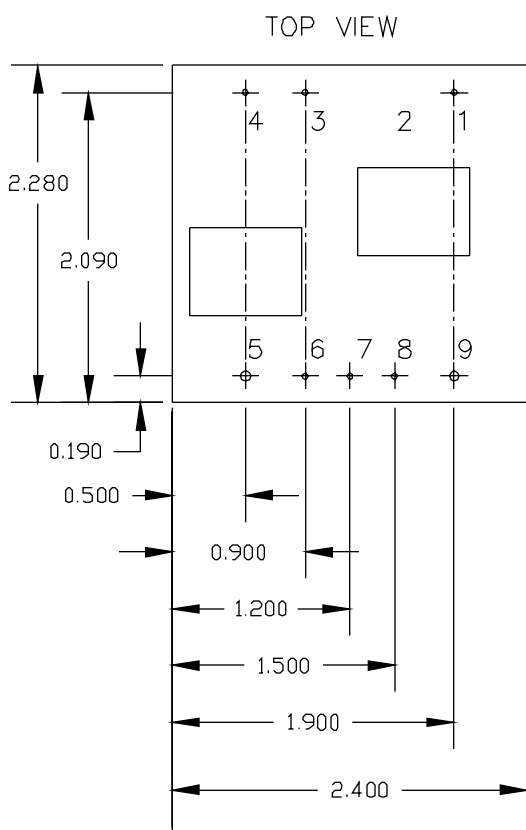
**SEMICONDUCTOR  
CIRCUITS, INC.**

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# SC125A Series Ordering Information

Input Voltage Range	Output Voltage	Output Current	Model Number
18-36 Vdc	3.3 Vdc	25.0A	SC125A17-2500-24
18-36 Vdc	5 Vdc	20.0A	SC125A11-2000-24
18-36 Vdc	12 Vdc	10.0 A	SC125A12-1000-24
36-76 Vdc	3.3 Vdc	30.0 A	SC125A17-3000-48
36-76 Vdc	5 Vdc	25.0 A	SC125A11-2500-48
36-76 Vdc	12 Vdc	10.0 A	SC125A12-1000-48

## Dimensions and Connections



### PIN CONNECTIONS

1. INPUT COMMON
2. NO PIN
3. REMOTE ON/OFF
4. + INPUT
5. + OUTPUT
6. + SENSE
7. TRIM
8. - SENSE
9. OUTPUT COMMON

### PIN DIAMETERS

PINS 1-4, 6-8	0.040 ±0.002
PINS 5, 9	0.080 ±0.002

### NOTES:

1. Ripple measured with a 3.3  $\mu$ F tantalum capacitor across each output.
2. External Output Trimming: Output may be externally trimmed  $\pm$ 10%
3. Remote ON/Off Control (pin3) common referenced to Minus Input (pin 1).  
On greater than 4.5 Vdc or open circuit  
Off less than 0.4 Vdc

06/30/2005