

# TUM/TUC Series



## DC/DC

### 18 Watts

Single Outputs

- 4:1 ultra wide input range  
9-36 Vdc  
20-72 Vdc
- 100kHz switching frequency
- Continuous short circuit protection
- Six-sided shielding

## Specifications

### INPUT

Voltage Range	9-36Vdc 20-72Vdc
Filtering	All Models
Reverse Polarity Protected	To Nominal Input Current External Fuse Required

### OUTPUT

Voltage Tolerance	± 1%
Ripple and Noise	50mV pk-pk
Short Circuit Protection	Continuous Power Cycle
Temperature Coefficient	0.02% / °C

### GENERAL

Regulation:	
Line	0.5%
Load	1.0%
Efficiency	77% (typ)
I/O Isolation	500 Vdc
Switching Frequency	100khz (typ)

### ENVIRONMENTAL

Operating Temperature	-25°C to +71°C No Derating
Storage Temperature	-25°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 18-Watt TUC/TUM Series operates over an ultra wide input range of 9-36 Vdc or 20-72 Vdc. Efficiencies of 77% are typical over varying load conditions of 25% to 100%. Additional features include input reverse polarity protection, short circuit protection with auto restart, overvoltage protection, and an operating temperature range of -25°C to +71°C with no derating.

### Applications

These units are ideally suited for telecommunications and applications having a widely varying input voltage such as automotive test equipment, process control, minicomputers, and geosurvey equipment.



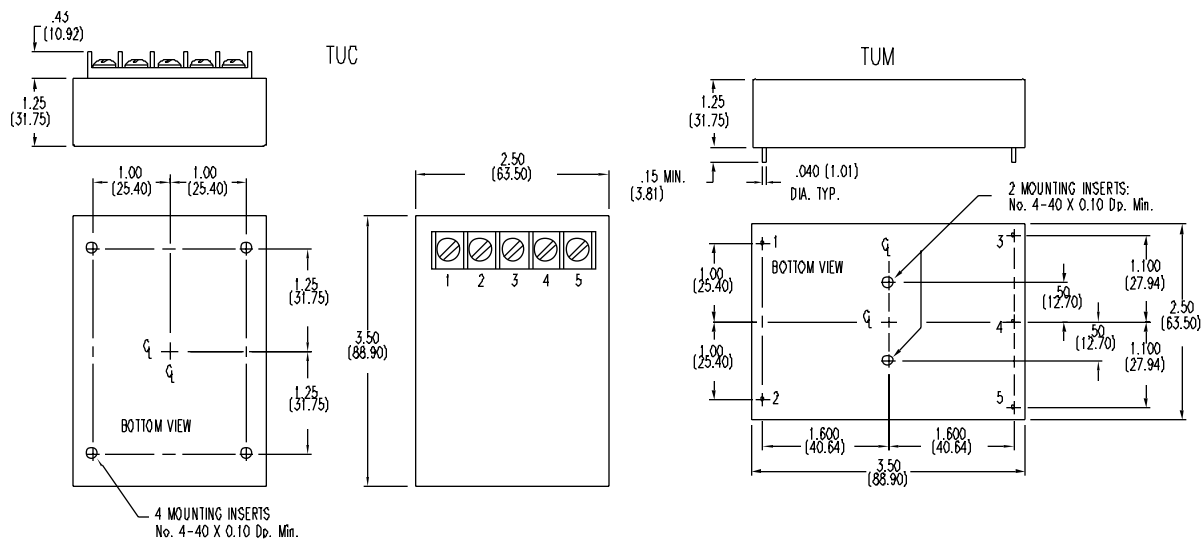
**SEMICONDUCTOR  
CIRCUITS, INC.**

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# TUM/TUC Series Ordering Information

Input Voltage Range	Output Voltage	Output Current	Model Number	Model Number
9-36 Vdc	5 Vdc	3500mA	TUM11-350-18	TUC11-350-18
20-72 Vdc	5 Vdc	3500mA	TUM11-350-48	TUC11-350-48
9-36 Vdc	12 Vdc	1500mA	TUM12-150-18	TUC12-150-18
20-72 Vdc	12 Vdc	1500mA	TUM12-150-48	TUC12-150-48
9-36 Vdc	15 Vdc	1200mA	TUM13-120-18	TUC13-120-18
20-72 Vdc	15 Vdc	1200mA	TUM13-120-48	TUC13-120-48

## Dimensions and Connections



### PIN CONNECTIONS

#### Pin / Terminal

1. +Input
2. -Input
3. + Output
4. No Connect
5. Common

### NOTES:

1. Ripple measured with a 3.3 mf tantalum capacitor across each output.
2. Load regulation from full load to minimum load with all other outputs at rated load.
3. Minimum current required on 5V out only.
4. Maximum total power from all outputs is 18 Watts and no output is to exceed its maximum rated current.

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