# 5A Series 6W-24W Wide Input DC-DC Converters

## Features

- 6W-24W Non-isolated Output
- 24-Pin DIP Package
- Regulated Outputs
- Up to 94% Efficiency
- Input LC Filter
- Low Ripple and Noise

| Model Number | Input Voltage | Output Voltage | Output Current | Input Current | | % Efficiency | Case |
|---|---|---|---|---|---|---|---|
| | | | | No Load | Full Load | | |
| 5A-05S33 | 4.7-6 VDC | 3.3 VDC | 2000 mA | 15 mA | 1535 mA | 86 | |
| 5A-12S33 | 9-32 VDC | 3.3 VDC | 2000 mA | 15 mA | 647 mA | 85 | |
| 5A-12S05 | 9-32 VDC | 5 VDC | 2000 mA | 15 mA | 947 mA | 88 | |
| 5A-12S12 | 9-32 VDC | 12 VDC | 830 mA | 15 mA | 954 mA | 87 | A |
| 5A-12S15 | 9-32 VDC | 15 VDC | 666 mA | 15 mA | 957 mA | 87 | |
| 5A-24S12 | 16-32 VDC | 12 VDC | 1600 mA | 15 mA | 860 mA | 93 | |
| 5A-24S15 | 19-32 VDC | 15 VDC | 1600 mA | 15 mA | 1053 mA | 94 | |

Note: Nominal Input Voltage 5, 12, or 24VDC

## Specifications

**Input Specifications:**

Input Voltage Range……..…..5V……..……..4.7-6V
12V……..…… 9-32V
24V……16-32V
24V……19-32V

Input Filter……LC Type

**Output Specifications:**

Voltage Accuracy……+/- 2.0 % max.

Ripple & Noise, 20 MHz BW……..3.3V/5V…..… 100 mV p-p max.
12V / 15V……1% p-p max.
Temperature Coeffcient…… +/- 0.05 % /º C max.
Over current Protection……..……120~150%
Line Regulation [1] ……..…..+/- 0.5 % max.
Load Regulation [2] ……...……..…..+/- 0.5 % max.

**General Specifications**:

Efficiency……..……..see table

Switching Frequency……..150 KHz, Typ.
Operating Temperature Range……-25º C ~ +71º C
Case Temperature……100 º C max.
Cooling……..……..Free air convection
Storage Temperature Range……..…..-40 º C ~ +100º C
Cooling……Free air convection
Isolation Voltage(input / output)……..……Non-isolaltion

Dimensions……..……1.25” x 0.8” x 0.4 “(31.8 x 20.3 x 10.2 mm)

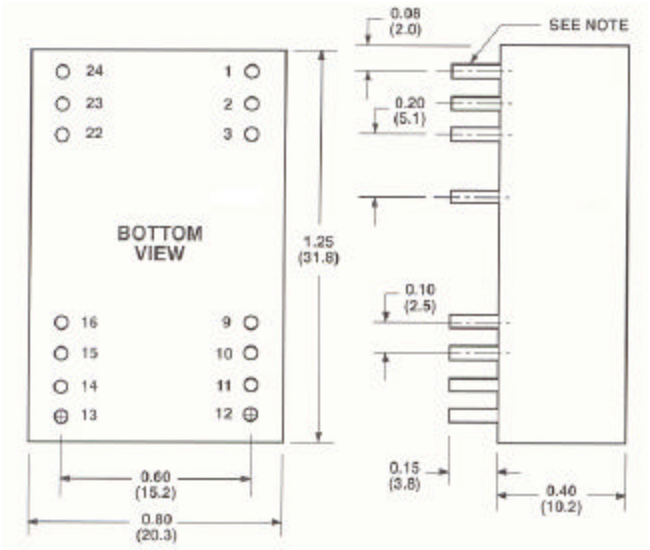
Standard Models(Material)……..Black Coated Copper with Non-conducted base

## Outline Information and Pin-out

| PIN CONNECTION | | | |
|---|---|---|---|
| **Pin** | **Function** | **Pin** | **Function** |
| 1 | NP | 24 | NP |
| 2 | -V input | 23 | + V input |
| 3 | -V input | 22 | + V input |
| 9 | -V output | 16 | -V output |
| 10 | NC | 15 | NC |
| 11 | +V output | 14 | + V output |
| 12 | NP | 13 | NP |

- NP---No Pin
- * NC---No connection with pin

All dimensions are in inches [mm]
All pins sizes are dia. 0.02” [0.508mm] and 0.14”[0.35mm] length




Note:
1. Measured from high line to low line
2. Measured from full load to 10% load