



# EC5A SERIES

## 6-24WATT WIDE INPUT DC-DC CONVERTERS



### FEATURES

- \* 6-24W Non-Isolated Output
- \* DIP-24/SMD Package
- \* Efficiency to 94%
- \* Regulated Outputs
- \* Input LC Filter



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.	CASE
				NO LOAD	FULL LOAD		
EC5A-05S33	4.7-6 VDC	3.3 VDC	2000 mA	15 mA	1553 mA	85	DIP-24
EC5A-12S33	9-32 VDC	3.3 VDC	2000 mA	15 mA	655 mA	84	DIP-24
EC5A-12S05	9-32 VDC	5 VDC	2000 mA	15 mA	947 mA	88	DIP-24
EC5A-12S12	9-32 VDC	12 VDC	830 mA	15 mA	954 mA	87	DIP-24
EC5A-12S15	9-32 VDC	15 VDC	666 mA	15 mA	957 mA	87	DIP-24
EC5A-24S12	16-32 VDC	12 VDC	1600 mA	15 mA	860 mA	93	DIP-24
EC5A-24S15	19-32 VDC	15 VDC	1600 mA	15 mA	1064 mA	94	DIP-24

NOTE: 1. Nominal Input Voltage: 5, 12 or 24 VDC

# SPECIFICATIONS

All Specifications Typical At Nominal Line, Full Load, and 25°C Unless Otherwise Noted

## INPUT SPECIFICATIONS:

Input Voltage Range	5.0V	4.7-6V
	12V	9-32V
	24V	16-32V
	24V	19-32V
Input Filter	LC Type	

## OUTPUT SPECIFICATIONS:

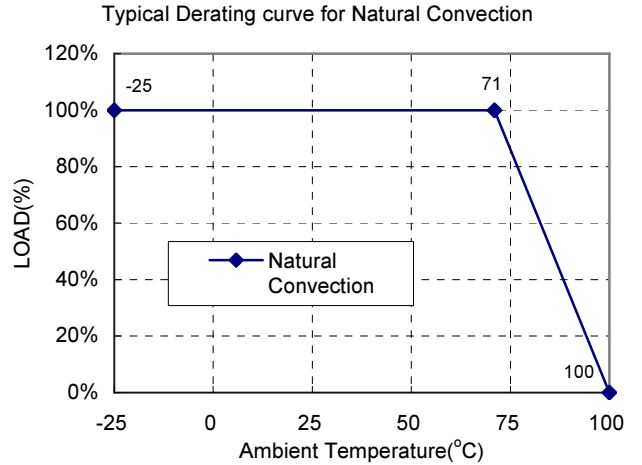
Voltage Accuracy	±2.0% max.	
Temperature Coefficient	±0.05%/°C	
Ripple & Noise, 20MHz BW	3.3V/5V	100mV pk-pk max.
	12V/15V	1% pk-pk max.
Over Current Protection	120 ~ 160%	
Line Regulation (note1)	±0.5% max.	
Load Regulation (note2)	±0.5% max.	

## GENERAL SPECIFICATIONS:

Efficiency	See Table	
Switching Frequency	150KHz typ.	
Isolation Voltage (Input/Output)	Non-Isolation	
Operating Ambient Temperature Range	-25°C to +71°C	
De-rating, Above 71°C	Linearly to Zero power at 100°C	
Case Temperature (note4)	100°C max.	
Cooling	Natural Convection	
Storage Temperature Range	-40°C to +100°C	
Dimensions	DIP	1.25x0.80x0.40 inches(31.8x20.3x10.2 mm)
	SMD	1.25x0.80x0.45 inches(31.8x20.3x11.4 mm)
Weight	17.8g	
Case Material	Black Coated Copper with Non-conductive Base	

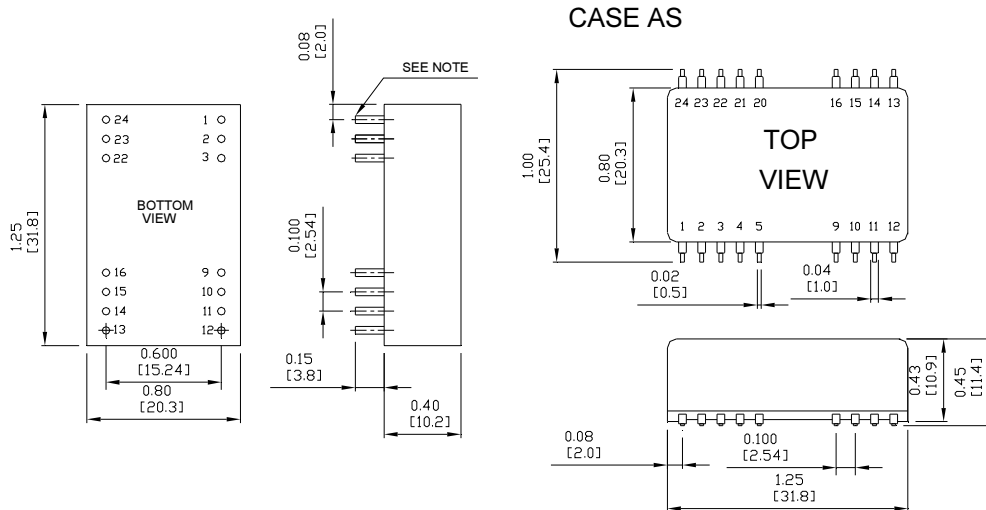
## NOTE:

1. Measured from high line to low line.
2. Measured from full load to 10% load.
3. Suffix "S" to the model number with SMD packages.
4. Maximum case temperature under any operating condition should not be exceeded 100°C.



## Case A Dimensions:

NOTE: Pin Size is 0.02±0.002 Inch (0.5±0.05 mm)DIA  
 All Dimensions In Inches (mm)  
 Tolerances Inches: X.XX= ±0.02 , X.XXX= ±0.010  
 Millimeters: X.X= ±0.5 , X.XX=±0.25



PIN CONNECTION		
Pin	Function	
	DIP	SMD
1,24	NP	NC
2,3	-V Input	
4,5	NP	NC
9,16	-V Output	
10,15	NC	
11,14	+V Output	
12,13	NP	NC
20,21	NP	NC
22,23	+V Input	

\* NC-NO CONNECTION WITH PIN  
 \* NP-NO PIN