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℃ 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%/℃
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.

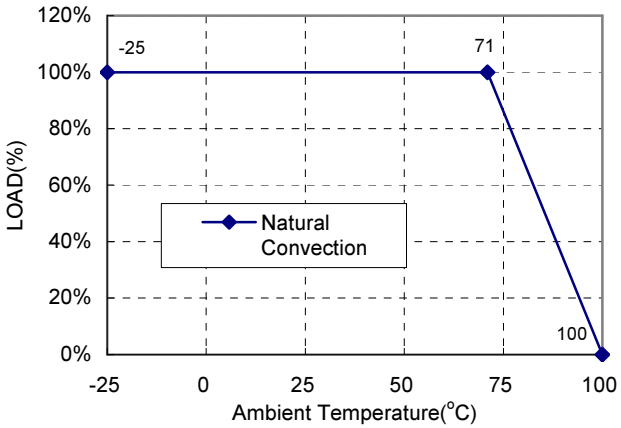
GENERAL SPECIFICATIONS:

Efficiency ..... See Table
Switching Frequency ..... 150KHz typ.
Isolation Voltage (Input/Output) ..... Non-Isolation
Operating Ambient Temperature Range ..... -25℃ to +71℃
De-rating, Above 71℃ ..... Linearly to Zero power at 100℃
Case Temperature (note4) ..... 100℃ max.
Cooling ..... Natural Convection
Storage Temperature Range ..... -40℃ to +100℃
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℃.

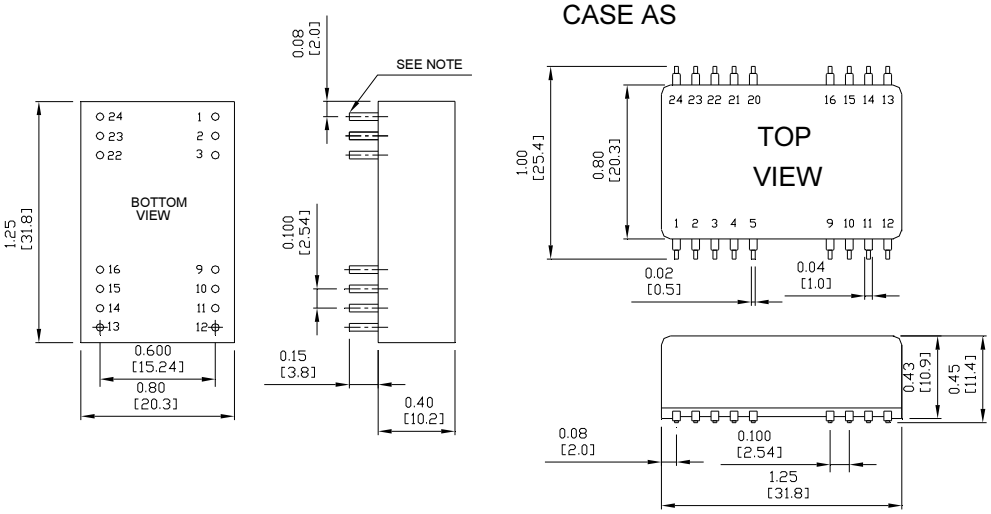
Typical Derating curve for Natural Convection



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

CASE AS



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