



EC2SAN SERIES

2WATT, UNREGULATED OUTPUT DC-DC CONVERTERS

FEATURES

- * Industry Standard SIP Packages
- * Efficiency up to 86%
- * 1000VDC Isolation
- * Low Cost
- * Unregulated Outputs
- * Industry Standard Pinout
- * Without Tantalum Capacitors inside



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		%	CAPACITIVE LOAD MAX.
				NO LOAD	FULL LOAD	EFF.	
EC2SA01N	5 VDC	5 VDC	400 mA	60 mA	488mA	82	470uF
EC2SA02N	5 VDC	12 VDC	167 mA	60 mA	466mA	86	470uF
EC2SA03N	5 VDC	15 VDC	134 mA	60 mA	473mA	85	470uF
EC2SA04N	5 VDC	±12 VDC	±83 mA	60 mA	463mA	86	470uF
EC2SA05N	5 VDC	±15 VDC	±67 mA	60 mA	467mA	86	470uF
EC2SA06N	5 VDC	±5 VDC	±200 mA	60 mA	482mA	83	470uF
EC2SA11N	12 VDC	5 VDC	400 mA	40 mA	203mA	82	470uF
EC2SA12N	12 VDC	12 VDC	167 mA	40 mA	201mA	83	470uF
EC2SA13N	12 VDC	15 VDC	134 mA	40 mA	199mA	84	470uF
EC2SA14N	12 VDC	±12 VDC	±83 mA	40 mA	202mA	82	470uF
EC2SA15N	12 VDC	±15 VDC	±67 mA	40 mA	199mA	84	470uF
EC2SA16N	12 VDC	±5 VDC	±200 mA	40 mA	203mA	82	470uF
EC2SA21N	24 VDC	5 VDC	400 mA	20 mA	105mA	79	470uF
EC2SA22N	24 VDC	12 VDC	167 mA	20 mA	103mA	81	470uF
EC2SA23N	24 VDC	15 VDC	134 mA	20 mA	102mA	82	470uF
EC2SA24N	24 VDC	±12 VDC	±83 mA	20 mA	102mA	81	470uF
EC2SA25N	24 VDC	±15 VDC	±67 mA	20 mA	102mA	82	470uF
EC2SA26N	24 VDC	±5 VDC	±200 mA	20 mA	105mA	79	470uF

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

SPECIFICATIONS

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

INPUT SPECIFICATIONS :

Input Voltage Range.....	±10%
Input Surge Voltage (100ms max.).....	.5V..... 9Vdc max.
12V.....	18Vdc max.
24V.....	30Vdc max.

Input FilterCapacitive

OUTPUT SPECIFICATIONS :

Voltage Accuracy.....	±3.0% max.
Voltage Balance(Dual)	±1.0% max.
Ripple and Noise, 20MHz BW.....	150mV p-p max.
Single output, 5V.....	100mVp-p max.
Temperature Coefficient.....	±0.05%/C max.
Short Circuit Protection.....	Momentary 1sec. max.
Line Regulation, Note1.....	±1.2% max.
Load Regulation, Note2.....	±10% max.

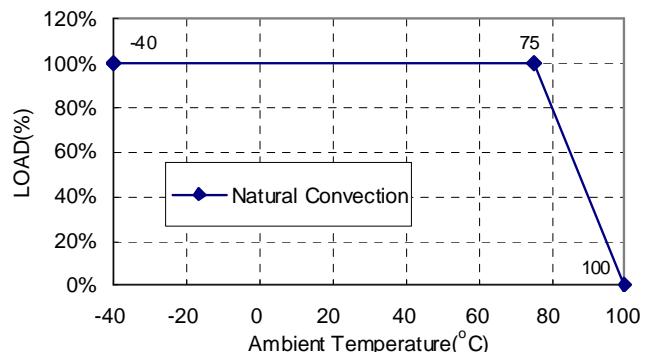
GENERAL SPECIFICATIONS :

Efficiency.....	See Table
Isolation Voltage.....	1000 VDC min.
Isolation Resistance	10 ⁹ Ohms min.
Isolation Capacitance.....	15 pF Typ
Switching Frequency	80KHz typ.
Operating Ambient Temperature Range.....	-40°C to +85°C
De-rating, Above 75°C	Linearly to Zero power at 100°C
Case temperature (Note4)	+100°C max.
Cooling	Natural Convection
Storage Temperature Range	-55°C to +125°C
Humidity.....	95% RH max. Non condensing
MTBF.....	MIL-STD-217F.....3Mhrs Typ.
Dimensions	0.77 x 0.28 x 0.40 inches(19.6x7.2 x 10.2mm)
Case Material.....	Non-conductive black plastic
Weight.....	2.7g

NOTE :

1. Line regulation is per 1.0% change in input voltage
2. Load regulation is for load change from 100% to 20%
3. The output noise is measured with 0.33uF ceramic capacitor.
4. Maximum case temperature under any operating condition should not be exceeded 100°C.
5. The EC2SA2XN Input Terminal Need to Parallel With 10uF Ceramic Capacitor

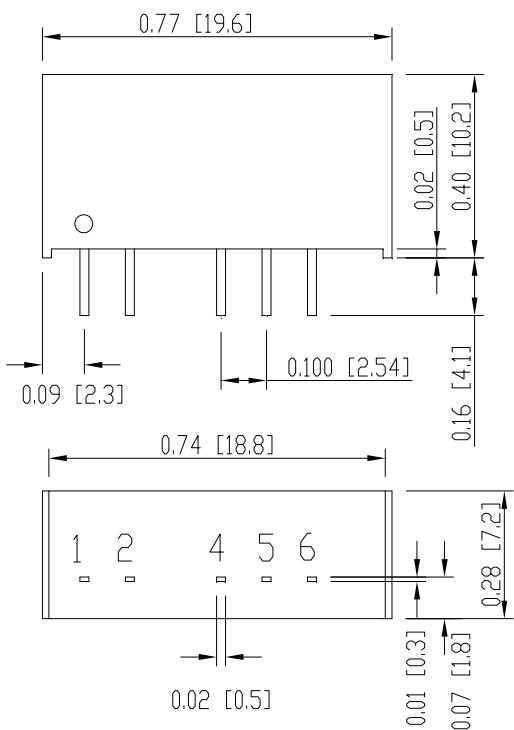
Typical Derating curve for Natural Convection



Dimensions:

CASE SIP-7

SIP PACKAGES



All Dimensions In Inches(mm)
Tolerance Inches Millimeters
X. XX±0. 01 X. X±0. 25
X. XXX±0. 005 X. XX±0. 13
Pin ±0. 002 ±0. 05

PIN CONNECTION		
Pin	Single Output	Dual Output
1	+Vin	+Vin
2	-Vin	-Vin
4	-Vout	-Vout
5	No Pin	Common
6	+Vout	+Vout