



# EC4SAW SERIES

## 5-6 WATT WIDE INPUT DC-DC CONVERTERS

### FEATURE

- \* 5-6W Isolated Output
- \* Compact SIP-8 Package
- \* Efficiency to 89%
- \* 4:1 Input Range
- \* Regulated Outputs
- \* Remote On/Off Control
- \* 1500VDC Isolation
- \* Continuous Short Circuit Protection



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		%EFF.		CAPACITOR LOAD MAX.
			MIN.	MAX.	NO LOAD	FULL LOAD	(3)	(2)	
EC4SAW-24S33N	9-36 VDC	3.3 VDC	0 mA	1500 mA	4 mA	310 mA	82	82	4700uF
EC4SAW-24S05N	9-36 VDC	5 VDC	0 mA	1200 mA	4 mA	298 mA	86	86	2200uF
EC4SAW-24S12N	9-36 VDC	12 VDC	0 mA	500 mA	5 mA	288 mA	88	88	1100uF
EC4SAW-24S15N	9-36 VDC	15 VDC	0 mA	400 mA	5 mA	288 mA	89	88	470uF
EC4SAW-48S33N	18-75 VDC	3.3 VDC	0 mA	1500 mA	3 mA	155 mA	82	82	4700uF
EC4SAW-48S05N	18-75 VDC	5 VDC	0 mA	1200 mA	3 mA	150 mA	85	85	2200uF
EC4SAW-48S12N	18-75 VDC	12 VDC	0 mA	500 mA	3 mA	145 mA	88	89	1100uF
EC4SAW-48S15N	18-75 VDC	15 VDC	0 mA	400 mA	3 mA	145 mA	89	88	470uF

#### NOTE:

1. Nominal Input Voltage 24 or 48 VDC
2. Measured at Nominal Input Voltage
3. Measured at 12VDC for 24Vin, 24VDC for 48Vin

# SPECIFICATIONS

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

## INPUT SPECIFICATIONS:

Input Voltage Range .....	24V .....	9-36V
	48V.....	18-75V
Input Surge Voltage (100 ms max.) .....	24V .....	50VDC max.
	48V.....	100VDC max.
Input Filter .....	Capacitive	
Remote on/off control:		
Module On .....	Open or high impedance	
Module Off .....	2mA to 4mA	
Module Off (input idle current) .....	2.5mA max.	

## OUTPUT SPECIFICATIONS:

Voltage Accuracy .....	±1.5% max.
Transient Response: 25% Step Load Change	
Recovery Time .....	< 250us
Ripple & Noise, 20MHz BW .....	100mV pk-pk max.
Temperature Coefficient .....	±0.03%/°C
Short Circuit Protection .....	Continuous
Line Regulation (note1) .....	±0.2% max.
Load Regulation (note2) .....	±0.5% max.
Current Limit .....	180% typ.
Start up time .....	15ms typ.

## GENERAL SPECIFICATIONS:

Efficiency .....	See Table
Isolation Voltage .....	1500VDC min.
Isolation Resistance .....	10 <sup>9</sup> ohm min.
Isolation Capacitance .....	50pF max.
Switching Frequency .....	580KHz typ.
Operating Ambient Temperature .....	-40°C to +85°C
De-rating, Above 61°C .....	3.3V/5V ... Linearly to Zero power at 105°C
De-rating, Above 65°C .....	12V/15V ... Linearly to Zero power at 105°C
Case Temperature (note3) .....	105°C max.
Cooling .....	Natural Convection
Storage Temperature .....	-55°C to +125°C
Humidity .....	95% RH max. Non condensing
MTBF .... MIL-STD-217F, GB, 25°C, Full Load .....	T.B.D. hrs
Dimensions .....	0.86x0.36x0.44 inches(21.8x9.2x11.1 mm)
Case Material .....	Non-Conductive Black Plastic
Weight .....	4.8g

## NOTE:

1. Measured from high line to low line.
2. Measured from full load to no load.
3. Maximum case temperature under any operating condition should not be exceeded 105°C.

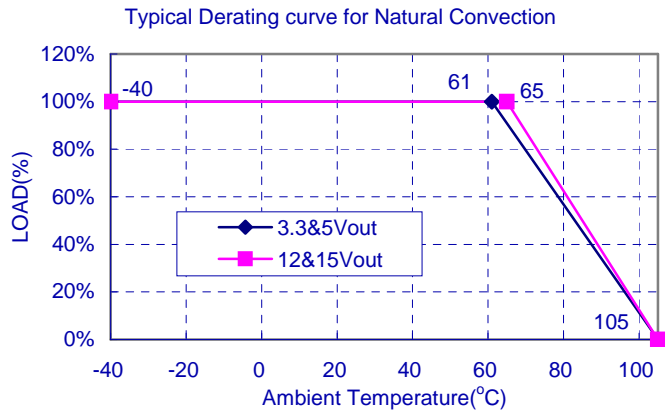
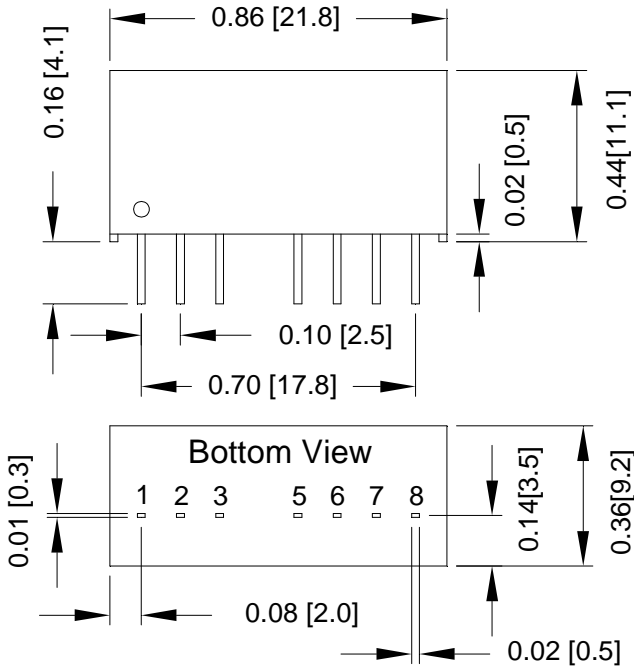
## CASE SA DIMENSIONS:

All Dimensions In Inches(mm)

Tolerances : Inches millimeters

X.XX±0.02 X.X±0.5

Pin ±0.002 ±0.05



PIN CONNECTION	
Pin	Single
1	-V Input
2	+V Input
3	On/Off
5	NC
6	+V Output
7	-V Output
8	NC