



EC3SAW SERIES

3 WATT 4:1 INPUT

DC-DC CONVERTERS

FEATURES

- * 3W Isolated Output
- * Compact SIP-8 Package
- * Efficiency to 85%
- * 4:1 Input Range
- * Regulated Outputs
- * Remote On/Off Control
- * 1500VDC Isolation
- * Continuous Short Circuit Protection
- * Input Under Voltage Protection
- * Without Tantalum Capacitors inside



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		EFF. (%)	Capacitor Load max
			MIN.	MAX.	NO LOAD	FULL LOAD		
EC3SAW-24S33P	9-36 VDC	3.3VDC	0 mA	700 mA	4 mA	122 mA	79	1800uF
EC3SAW-24S05P	9-36 VDC	5VDC	0 mA	600 mA	4 mA	154 mA	81	1000uF
EC3SAW-24S12P	9-36 VDC	12VDC	0 mA	250 mA	8 mA	150 mA	84	220uF
EC3SAW-24S15P	9-36 VDC	15VDC	0 mA	200 mA	8 mA	150 mA	84	120uF
EC3SAW-24D05P	9-36 VDC	±5VDC	0 mA	±300 mA	8 mA	154 mA	81	±470uF
EC3SAW-24D12P	9-36 VDC	±12VDC	0 mA	±125 mA	12 mA	150 mA	84	±100uF
EC3SAW-24D15P	9-36 VDC	±15VDC	0 mA	±100 mA	12 mA	151 mA	83	±47uF
EC3SAW-48S33P	18-75 VDC	3.3VDC	0 mA	700 mA	3 mA	61 mA	79	1800uF
EC3SAW-48S05P	18-75 VDC	5VDC	0 mA	600 mA	3 mA	76 mA	82	1000uF
EC3SAW-48S12P	18-75 VDC	12VDC	0 mA	250 mA	5 mA	74 mA	85	220uF
EC3SAW-48S15P	18-75 VDC	15VDC	0 mA	200 mA	5 mA	75 mA	84	120uF
EC3SAW-48D05P	18-75 VDC	±5VDC	0 mA	±300 mA	5 mA	76 mA	82	±470uF
EC3SAW-48D12P	18-75 VDC	±12VDC	0 mA	±125 mA	10 mA	75 mA	84	±100uF
EC3SAW-48D15P	18-75 VDC	±15VDC	0 mA	±100 mA	10mA	75 mA	83	±47uF

NOTE: 1. Nominal Input Voltage 24 or 48 VDC

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 (100ms max.)	24V	50Vdc max
	48V	100Vdc max.

Under-Voltage Protection :

24Vin Power up	7.5 VDC max
Power down	6 VDC min
48Vin Power up	15 VDC max
Power down	12 VDC min

Input Filter Capacitive

Remote on/off control :

Module On	Open Circuit
Module Off	< 1.2VDC
Module Off (input idle current)	1mA max.

OUTPUT SPECIFICATIONS:

Voltage Accuracy	±1.5% max.
Voltage Balance(Dual)	±1.0% max.
Cross regulation(Dual)(Note4)...Asymmetrical load 25%/100%.....	±5.0% max

Transient Response: 25% Step Load Change

Error Band	±6% Vout nominal
Recovery Time	< 500us

Ripple & Noise, 20MHz BW 50mV pk-pk, max.

Temperature Coefficient..... ±0.03%/°C

Line Regulation (Note1) ±0.5% max.

Load Regulation (Note2)	Single	±0.5% max.
	Dual	±1.0% max.

Output Short Circuit Protection Continuous

Start up time 5ms max

GENERAL SPECIFICATIONS:

Efficiency.....	See Table
Isolation Voltage	1500VDC min.
Isolation Resistance	10 ⁹ ohm min.
Isolation Capacitance.....	500pF Typ.
Switching Frequency	100KHz min.
Operating Ambient Temperature.....	-40°C to +85°C
Power de-rating Curve.....	see Figure1
De-rating, Above 71°C	Linearly to Zero power at 100°C
Case Temperature (Note3).....	100°C max.
Cooling.....	Natural Convection
Storage Temperature	-55°C to +125°C
Humidity.....	95% RH max. Non condensing
MTBF	MIL-STD-217F, GBT.B.D. hrs
EMI	Conductive EMI Meet EN55022 Class A & Class B(Note5)
Dimensions	0.86×0.36×0.44 inches(21.80×9.20×11.10 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 10% Load
3. Maximum case temperature under any operating condition should not be exceeded 100°C.
4. For asymmetric loading, Both channels must be at 25% load or more
5. The EC3SAW series meet EN55022 Class A & Class B with external C-L filter before the input pins to the converter.(see application note)

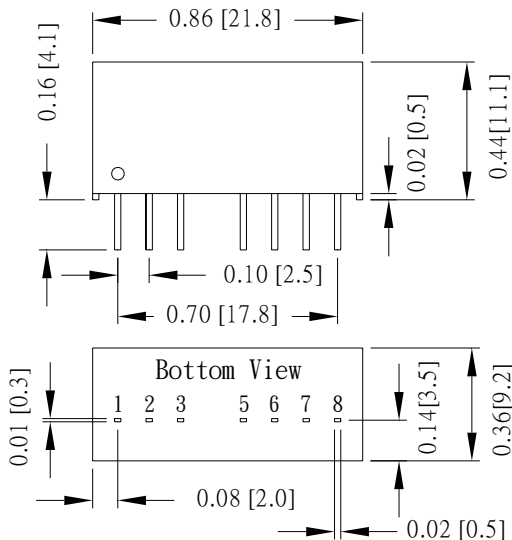
CASE SA DIMENSIONS:

All Dimensions In Inches(mm)

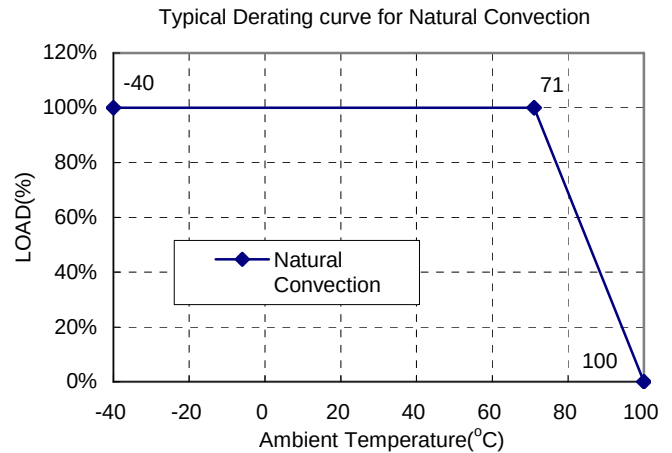
Tolerances : Inches millimeters

X.XX±0.02 X.X±0.5

Pin ±0.002 ±0.05



PIN CONNECTION		
Pin	Single	Dual
1	-Vin	-Vin
2	+Vin	+Vin
3	CTRL	CTRL
5	NC	NC
6	+Vo	+Vo
7	-Vo	Common
8	NC	-Vo



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