



EC3SBW SERIES 15 WATT 4:1 INPUT DC-DC CONVERTERS

FEATURE

- * 15W Isolated Output
- * Efficiency to 88%
- * 4:1 INPUT RANGE
- * Regulated Outputs
- * Fixed Switching Frequency
- * Input under-voltage Protection
- * Over Current Protection
- * Remote ON/OFF
- * Continuous Short Circuit Protection
- * Without Tantalum Capacitors inside

EC3SBW Series

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	SIZE
			MIN.	MAX.	NO LOAD	FULL LOAD		
EC3SBW-24S33	9-36 VDC	3.3 VDC	0 mA	4000 mA	60 mA	632 mA	87	SB
EC3SBW-24S05	9-36 VDC	5 VDC	0 mA	3000 mA	70 mA	718 mA	87	SB
EC3SBW-24S12	9-36 VDC	12 VDC	0 mA	1250 mA	30 mA	718 mA	87	SB
EC3SBW-24S15	9-36 VDC	15 VDC	0 mA	1000 mA	30 mA	710 mA	88	SB
EC3SBW-24D05	9-36 VDC	±5 VDC	0 mA	±1500mA	30 mA	735 mA	85	SB
EC3SBW-24D12	9-36 VDC	±12 VDC	0 mA	±625mA	30 mA	718 mA	87	SB
EC3SBW-24D15	9-36 VDC	±15 VDC	0 mA	±500mA	30 mA	710 mA	88	SB
EC3SBW-48S33	18-75 VDC	3.3 VDC	0 mA	4000 mA	40 mA	313 mA	88	SB
EC3SBW-48S05	18-75 VDC	5 VDC	0 mA	3000 mA	40 mA	355 mA	88	SB
EC3SBW-48S12	18-75 VDC	12 VDC	0 mA	1250 mA	20 mA	359 mA	87	SB
EC3SBW-48S15	18-75 VDC	15 VDC	0 mA	1000 mA	20 mA	359 mA	87	SB
EC3SBW-48D05	18-75 VDC	±5 VDC	0 mA	±1500mA	20 mA	368 mA	85	SB
EC3SBW-48D12	18-75 VDC	±12 VDC	0 mA	±625mA	20 mA	359 mA	87	SB
EC3SBW-48D15	18-75 VDC	±15 VDC	0 mA	±500mA	20 mA	359 mA	87	SB

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
 Under voltage lockout 24Vin power up 8.8V typ.
 24Vin power down 8.0V typ.
 48Vin power up 17V typ.
 48Vin power down 16V typ.
 Input Filter LC Type
 Positive Logic Remote on/off Control:
 Logic Compatibility CMOS or Open Collector TTL, ref. to -Vin
 Module ON >+3.5 to 75VDC or Open Circuit
 Module OFF <1.2VDC

OUTPUT SPECIFICATIONS:

Voltage Accuracy ±1.5% max.
 Voltage Balance(Dual) ±2.0% max.
 Transient Response: 75% ~ 100% Step Load Change.
 Error Band ±5% Vout nominal, Recovery Time < 250us
 Ripple & Noise, 20MHz BW (note5)
 Vo=3.3 & 5V 75mV p-p max.
 Vo=12 & 15V 100mV p-p max.
 Temperature Coefficient ±0.03%/C max.
 Short Circuit Protection Continuous
 Line Regulation(Note1), ... single ±0.2% max.
 Dual ±0.5% max
 Load Regulation(Note2), ... single ±0.2% max.
 Dual ±1.0% max
 Cross Regulation(Dual output) Load cross variation 10%/100% ±5% max
 Over Voltage Protection Zener or TVS Clamp
 External Trim Adj. Range (single output models only) ±10%
 Current Limit 110% - 160% Nominal Output

GENERAL SPECIFICATIONS:

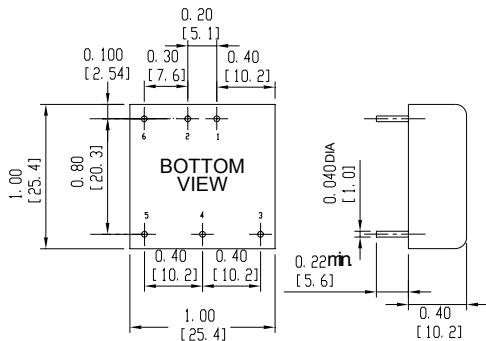
Efficiency See Table
 Isolation Voltage 1500 VDC min.
 Isolation Resistance 10⁹ Ohms min.
 Switching Frequency 400KHz typ.
 Operating Ambient Temperature Range -40°C to +85°C
 Derating, Above 68°C Linearly to Zero Power at +105°C
 Case Temperature (note 5) 105°C
 Cooling Natural Convection
 Storage Temperature Range -55°C to +125°C
 Dimensions ... DIP 1.00x1.00x0.40 inches (25.4x25.4x10.2mm)
 SMD 1.00x1.00x0.47 inches (25.4 x25.4 x11.94mm)
 Case Material Black Coated Copper with Non-Conductive Base
 Weight 8.8g

NOTE :

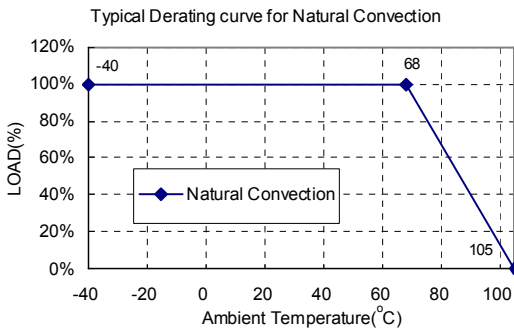
1. Measured From High Line to Low Line
2. Measured From Full Load to min. Load
3. Suffix "S" to the Model Number with SMD Package
4. The output ripple and noise is measured with 10uF tantalum and 1uF Ceramic capacitor across output.
5. Maximum case temperature under any operating condition should Not be exceeded 105°C.

SIZE SB Dimensions:

Tolerances Inches: X.XX= ±0.04 , X.XXX= ±0.010
 Millimeters: X.X= ±1.0 , X.XX=±0.25



Pin	DIP Function
1	+Input
2	-Input
3	+V Output
4	Trim
5	-V Output
6	Remote



EXTERNAL OUTPUT TRIM

