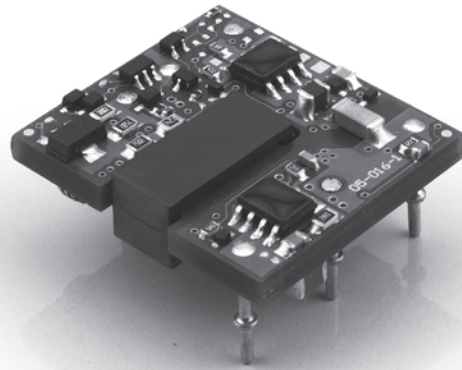


EC1SB

S E R I E S

13.2 - 15 WATT OPEN FRAME DC-DC CONVERTERS



Features

- 13.2-15W Isolated Output
- 1.1"x1" Open Frame Design
- Efficiency to 89%
- Regulated Outputs
- Fixed Switching Frequency
- Input Under-Voltage Protection
- Over Current Protection
- Remote ON/OFF
- Continuous Short Circuit Protection
- Fully Isolated 2250VDC
- CE Mark Meets 2004/108/EC
- UL60950-1 Approval

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	Capacitor Load max.
			MIN.	MAX.	NO LOAD	FULL LOAD		
EC1SB -24S33	18-36 VDC	3.3 VDC	0 mA	4000 mA	50 mA	639 mA	86	4000uF
EC1SB -24S05		5 VDC		3000 mA	50 mA	718 mA	87	3000uF
EC1SB -24S12		12 VDC		1250 mA	40 mA	718 mA	87	1250uF
EC1SB -24S15		15 VDC		1000 mA	40 mA	718 mA	87	1000uF
EC1SB -48S33	36-75 VDC	3.3 VDC	0 mA	4000 mA	30 mA	320 mA	86	4000uF
EC1SB -48S05		5 VDC		3000 mA	30 mA	359 mA	87	3000uF
EC1SB -48S12		12 VDC		1250 mA	30 mA	351 mA	89	1250uF
EC1SB -48S15		15 VDC		1000 mA	30 mA	351 mA	89	1000uF

NOTE: 1. Nominal Input Voltage 24 or 48VDC

Specifications

INPUT SPECIFICATIONS:

Input Voltage Range.....	24V.....	18-36V
	48V.....	36-75V
Input Surge Voltage(100ms max.).....	24V.....	50Vdc max.
	48V.....	100Vdc max.
Under Voltage lockout	24Vin power up.....	17V
	24Vin power down.....	16V
	48Vin power up.....	34V
	48Vin power down.....	32.5V
Input Filter	Capacitive Type	
Positive Logic Remote on/off Control :		
Logic Compatibility.....	CMOS or Open Collector TTL	
Module ON.....	>+5.5VDC or Open Circuit	
Module OFF.....	<1.2VDC	

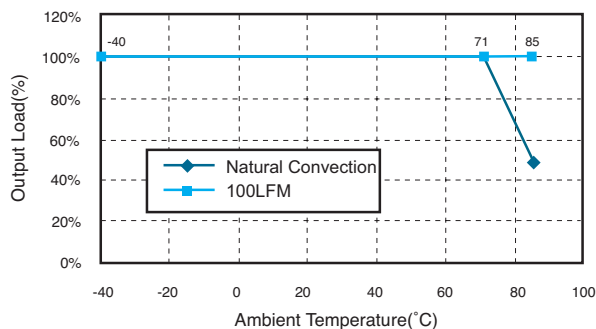
OUTPUT SPECIFICATIONS:

Voltage Accuracy.....	±1.5% max.
Transient Response : 25% Step Load Change.....	< 500µs
Ripple and Noise, 20MHz BW	Vo=3.3 & 5V.....75mV pk-pk max.
	Vo=12 & 15V.....100mV pk-pk max.
Temperature Coefficient.....	±0.03%/°C max.
Short Circuit Protection.....	Continuous
Line Regulation ¹	±0.2% max.
Load Regulation ²	±0.2% max.
Over Voltage Protection.....	Zener or TVS Clamp
External Trim Adj. Range.....	±10%
Current Limit.....	110% - 140% Nominal Output
Start up time	8ms typ.

GENERAL SPECIFICATIONS:

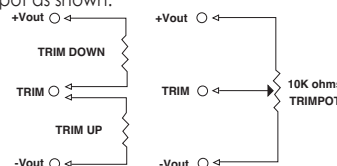
Efficiency.....	See Table
Isolation Voltage.....	2250 VDC min.
Isolation Resistance	10 ⁹ ohm min.
Isolation Capacitance	560pF typ.
Switching Frequency	400KHz typ.
Operating Ambient Temperature Range.....	-40°C to +85°C
Derating, Above 71°C	Linearly to Zero Power at +100°C
Cooling.....	Natural Convection
Storage Temperature Range	-40°C to +125°C
Humidity	95% RH max. Non condensing
MTBFMIL-STD-217-F, GB, 25°C, Full Load	1200Khrs Typ.
Dimensions.....	1.10x0.96x0.36 inches (27.9x24.4x9.1 mm)
Structure.....	Non-Potted with Open Frame Type
Weight.....	8.8g

EC1SB Series Derating Curve



External Output Trimming

Output may optionally be externally trimmed (±10%) with a fixed resistor or an external trimpot as shown.



NOTE:

1. Measured From High Line to Low Line.
2. Measured From Full Load to min. Load.
3. Suffix "N" to the Model Number with Negative Logic Remote ON/OFF
Module ON.....<1.2VDC
Module OFF.....>+5.5VDC to 50VDC or Open Circuit
4. Suffix "S" to the Model Number with SMD Package.
5. The Output Ripple and Noise is Measured with 10µF Tantalum and 1µF Ceramic Capacitor Across Output.

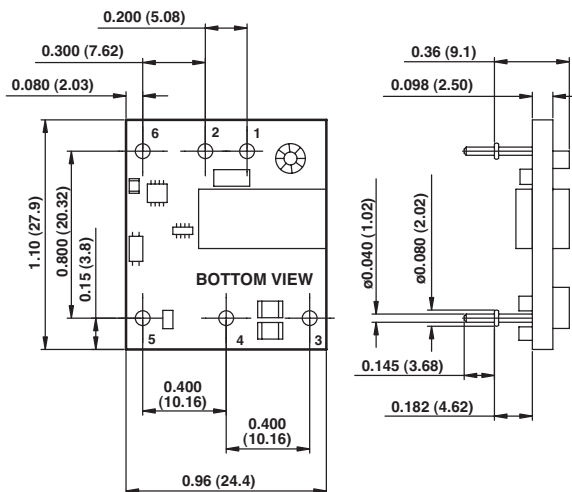
PIN CONNECTION

Pin	Function
1	+V Input
2	-V Input
3	+V Output
4	Trim
5	-V Output
6	Remote ON/OFF

SIZE SB

All Dimensions In Inches(mm)
Tolerance Inches: x.xx= ±0.02, x.xxx= ±0.010
Millimeters: x.xx= ±0.5, x.xxx= ±0.25

THROUGH-HOLE PACKAGE



SMD-PACKAGE

