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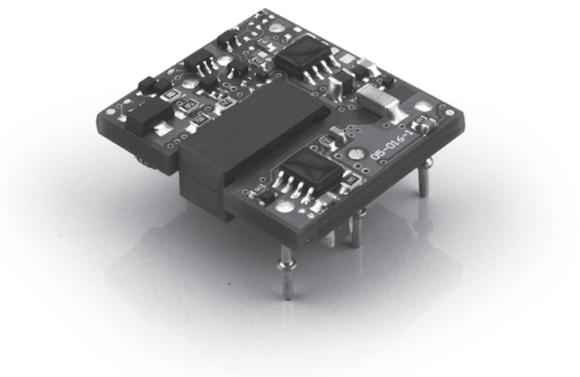
Änderungen vorbehalten / subject to change without notice

EC1SB SERIES

13.2 -15 WATT OPEN FRAME DC-DC CONVERTERS



E176177

Features

- 13.2-15W Isolated Output
- 1.1" x 1" Open Frame Design
- Regulated Outputs
- Efficiency to 89%
- 2250VDC Isolation
- Input Under Voltage Protection
- Over Current Protection
- Continuous Short Circuit Protection
- Remote On/Off Control

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	SIZE
			MIN.	MAX.	NO LOAD	FULL LOAD		
EC1SB -24S33	18-36 VDC	3.3 VDC	0 mA	4000 mA	50 mA	639mA	86	1.1" x 1"
EC1SB -24S05		5 VDC		3000 mA	50 mA	718mA	87	
EC1SB -24S12		12 VDC		1250 mA	40 mA	718mA	87	
EC1SB -24S15		15 VDC		1000 mA	40 mA	718mA	87	
EC1SB -48S33	36-75 VDC	3.3 VDC	0 mA	4000 mA	30 mA	320mA	86	1.1" x 1"
EC1SB -48S05		5 VDC		3000 mA	30 mA	359mA	87	
EC1SB -48S12		12 VDC		1250 mA	30 mA	351mA	89	
EC1SB -48S15		15 VDC		1000 mA	30 mA	351mA	89	

NOTE: 1. Nominal Input Voltage 24 or 48VDC

Specifications

INPUT SPECIFICATIONS:

Input Voltage Range..... 24V.....18-36V
48V.....36-75V
Undervoltage 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

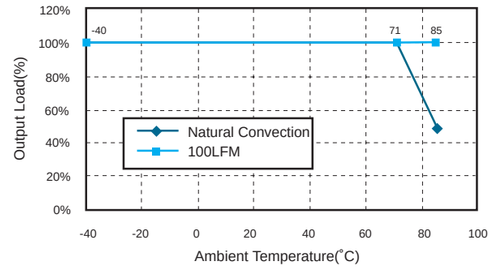
OUTPUT SPECIFICATIONS:

Voltage Accuracy.....±1.5% max.
Transient Response :25% Step Load Change..... <500µ sec.
Ripple and Noise, 20MHz BW .....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[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

GENERAL SPECIFICATIONS:

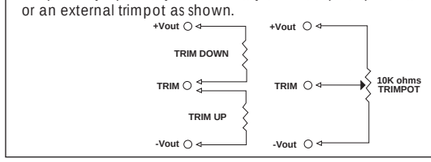
Efficiency.....See Table
Isolation Voltage.....2250 VDC min.
Isolation Resistance .....10^7 Ohms min.
Switching Frequency .....400KHz Typ.
Operating Ambient Temperature Range.....-40˚C to +85˚C
Derating, Above 71˚C .....Linearly to Zero Power at +100˚C
Cooling.....Natural Convection
Storage Temperature Range .....-40˚C to +125˚C
Dimensions.....1.10 x 0.96 x 0.36 inches
(27.9 x 24.4 x 9.1 mm)
Structure.....Non-Potted, 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 or Open Circuit
4. Suffix"S" to the Model Number with SMD Package
5. The Output Ripple and Noise is Measured with 10uF Tantalum and 1uF Ceramic Capacitor Across Output.

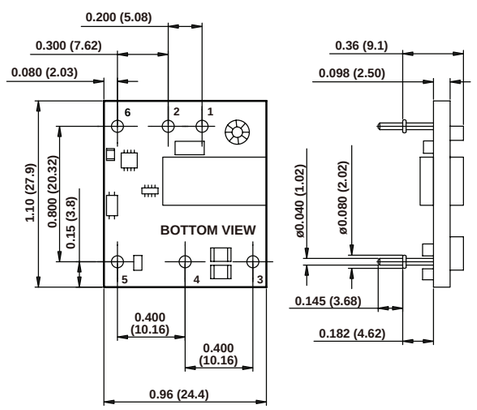
PIN CONNECTION

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

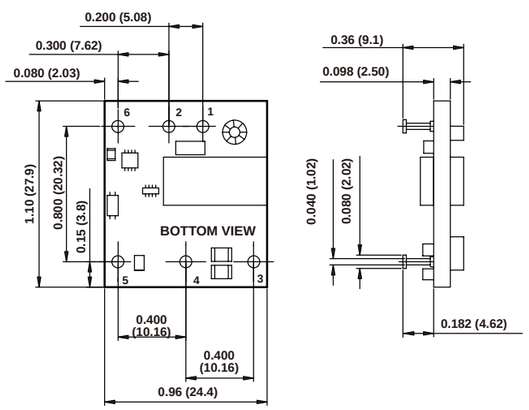
SIZE SB

All Dimensions In Inches(mm)
Tolerance Inches: .xx= ±.04, .xxx= ±.010
Millimeters: .xx= ±1.0, .xxx= ±0.25

THROUGH-HOLE PACKAGE



SMD-PACKAGE



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