

EC3BB

7.5 WATT WIDE INPUT DC-DC CONVERTERS



Features

- 7.5W Isolated Output
- Remote ON/OFF Option
- Efficiency to 82%
- 2:1 Input Range
- Regulated Outputs
- Continuous Short Circuit Protection
- Meets EN55022 Class B, Conducted
- Pi Input Filter

| MODEL NUMBER | INPUT VOLTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | INPUT CURRENT | | % EFF. | CASE |
|--------------|---------------|----------------|----------------|---------------|-----------|--------|------|
| | | | | NO LOAD | FULL LOAD | | |
| EC3BB01 | | 5 VDC | 1500 mA | 7.5 mA | 820 mA | 76 | |
| EC3BB02 | | 12 VDC | 625 mA | 7.5 mA | 780 mA | 80 | |
| EC3BB03 | | 15 VDC | 500 mA | 7.5 mA | 780 mA | 80 | |
| EC3BB04 | 9-18 VDC | ±12 VDC | ±310 mA | 12 mA | 775 mA | 80 | B |
| EC3BB05 | | ±15 VDC | ±250 mA | 12 mA | 780 mA | 80 | |
| EC3BB06 | | ±5 VDC | ±750 mA | 7.5 mA | 820 mA | 76 | |
| EC3BB07 | | 3.3 VDC | 1500 mA | 7.5 mA | 557 mA | 74 | |
| EC3BB11 | | 5 VDC | 1500 mA | 5 mA | 400 mA | 78 | |
| EC3BB12 | | 12 VDC | 625 mA | 5 mA | 380 mA | 82 | |
| EC3BB13 | | 15 VDC | 500 mA | 5 mA | 380 mA | 82 | |
| EC3BB14 | 18-36 VDC | ±12 VDC | ±310 mA | 7.5 mA | 385 mA | 81 | B |
| EC3BB15 | | ±15 VDC | ±250 mA | 7.5 mA | 385 mA | 81 | |
| EC3BB16 | | ±5 VDC | ±750 mA | 7.5 mA | 400 mA | 78 | |
| EC3BB17 | | 3.3 VDC | 1500 mA | 5 mA | 271 mA | 76 | |
| EC3BB21 | | 5 VDC | 1500 mA | 2 mA | 200 mA | 78 | |
| EC3BB22 | | 12 VDC | 625 mA | 2 mA | 192 mA | 81 | |
| EC3BB23 | | 15 VDC | 500 mA | 2 mA | 192 mA | 81 | |
| EC3BB24 | 36-72 VDC | ±12 VDC | ±310 mA | 3 mA | 192 mA | 81 | B |
| EC3BB25 | | ±15 VDC | ±250 mA | 3 mA | 192 mA | 81 | |
| EC3BB26 | | ±5 VDC | ±750 mA | 3 mA | 200 mA | 78 | |
| EC3BB27 | | 3.3 VDC | 1500 mA | 3 mA | 136 mA | 76 | |

NOTE: 1. Nominal Input Voltage 12, 24 or 48 VDC

Specifications

INPUT SPECIFICATIONS:

| | | |
|--------------------------|----------|---------|
| Input Voltage Range..... | 12V..... | 9-18V |
| | 24V..... | 18-36V |
| | 48V..... | 36-72V |
| Input Filter..... | | Pi Type |

OUTPUT SPECIFICATIONS:

| | | |
|---|-------------------------|----------------|
| Voltage Accuracy..... | | ± 2.0% max. |
| Voltage Balance (Dual)..... | | ± 1.0%/max. |
| Temperature Coefficient..... | | ± 0.05%/°C |
| Ripple and Noise, 20MHz BW..... | 3.3V / 5V..... | 100mV p-p max. |
| | 12V / 15V..... | 1% p-p max. |
| Short Circuit Protection..... | | Continuous |
| Line Regulation, Single/Dual ¹ | | ± 0.5% |
| Load Regulation, Single ² | | ± 0.5% |
| | Dual ³ | ± 1.0% |

GENERAL SPECIFICATIONS:

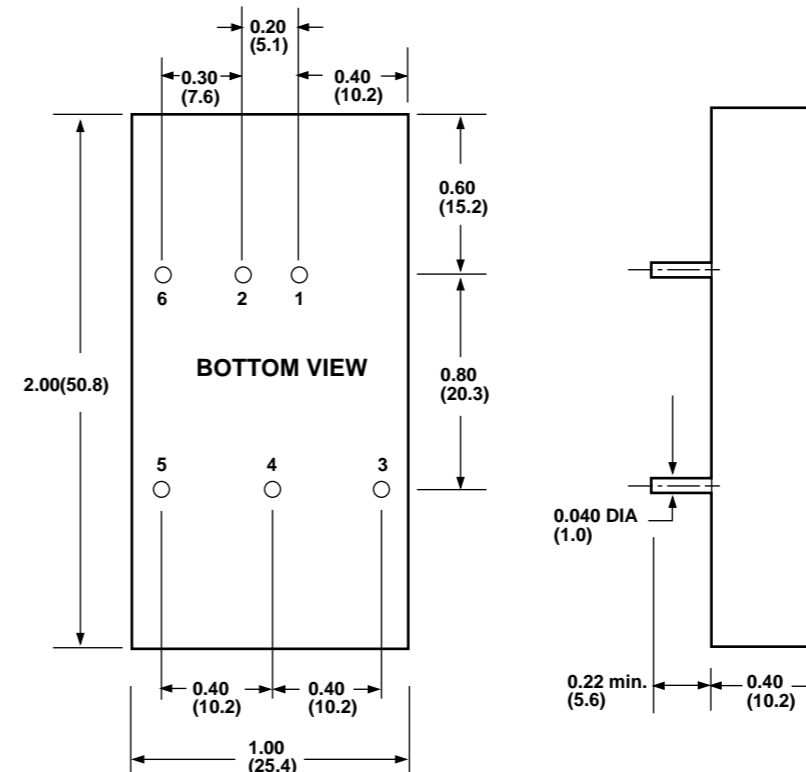
| | | |
|----------------------------------|--|---|
| Efficiency..... | | See Table |
| Isolation Voltage..... | | 1500 VDC min. |
| Isolation Resistance..... | | 10 ⁹ ohms |
| Switching Frequency..... | | 100KHz, min. |
| Operating Temperature Range..... | | -25°C to + 71°C |
| Case Temperature..... | | 100°C max. |
| Cooling..... | | Free-Air Convection |
| Storage Temperature Range..... | | -40°C to + 100°C |
| EMI / RFI..... | | Conductive EMI Meet EN55022 Class B |
| Dimensions..... | | 2 x 1 x 0.4 inches (50.8 x 25.4 x 10.2mm) |
| Case Material..... | | Black Coated Copper With Non-Conductive Base |

NOTE:

1. Measured From High Line to Low Line
2. Measured From Full Load to 10% Load
3. Measured From Full Load to 1/4 Load
4. Suffix "T" to the Model Number with Remote ON/OFF

CASE B

All Dimensions in Inches(mm)
Tolerance .xx = ±.04, .xxx = ±.010



Remote On/Off Control

| | |
|-----------------------|-------------------------------|
| Logic Compatibility | CMOS or Open Collector TTL |
| Ec-On | >+5.5 VDC or Open Circuit |
| Ec-Off | <1.8 VDC |
| Shutdown Idle Current | 10mA |
| Input Resistance | 100K Ohms (Ein 0 VDC to 9VDC) |
| Control Common | Referenced to Input Minus |

PIN CONNECTION

| Pin | Function |
|-----|--------------------|
| 1. | +Input |
| 2. | -Input |
| 3. | +Output |
| 4. | Common/NP |
| 5. | -Output |
| 6. | NP (Remote ON/OFF) |

*NP-NO PIN

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