

# EC1SC

## 20 WATT WIDE INPUT DC-DC CONVERTERS



### Features

- 20W Isolated Output
- Efficiency to 84%
- 4:1 Input Range
- Pi Input Filter
- Continuous Short Circuit Protection
- Meets EN55022 Class A, Conducted
- Remote On/Off Control

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		%EFF	CASE
				NO LOAD	FULL LOAD		
EC1SC01		5 VDC	4000mA	15mA	1029 mA	81	
EC1SC02		12 VDC	1670mA	15mA	1006 mA	83	
EC1SC03		15 VDC	1330mA	15mA	1004 mA	83	
EC1SC04	9-36 VDC	±12 VDC	±833mA	20mA	1004 mA	83	SC
EC1SC05		±15 VDC	±666mA	20mA	1004 mA	83	
EC1SC06		±5 VDC	±2000mA	20mA	1004 mA	83	
EC1SC07		3.3 VDC	4000mA	15mA	705 mA	78	
EC1SC11		5 VDC	4000mA	10mA	508 mA	82	
EC1SC12		12 VDC	1670mA	10mA	497 mA	84	
EC1SC13		15 VDC	1330mA	10mA	496 mA	84	
EC1SC14	18-72 VDC	±12 VDC	±833mA	15mA	496 mA	84	SC
EC1SC15		±15 VDC	±666mA	15mA	496 mA	84	
EC1SC16		±5 VDC	±2000mA	15mA	496 mA	84	
EC1SC17		3.3 VDC	4000mA	10mA	353 mA	78	

NOTE : 1. Nominal Input Voltage 24 or 48 VDC

### Specifications

#### INPUT SPECIFICATIONS:

Input Voltage Range.....	24V .....	9-36V
	48V .....	18-72V
Input Filter .....		Pi Type
Positive Logic Remote ON/OFF Control.....		See Note3

#### OUTPUT SPECIFICATIONS:

Voltage Accuracy Single Output.....		±1.0% max.
Voltage Accuracy Dual + Output.....		±1.0% max.
Voltage Accuracy Dual - Output.....		±2.0% max.
Voltage Balance, Dual Output at Full Load.....		±1.0% max.
Transient Response		
Single 25% Step Load Change .....		<500µ sec.
Dual-FL-1/2L ±1% Error Band .....		<500µ sec.
External Trim Adj. Range .....		±10%
Ripple & Noise, 20MHz BW.....		20mV RMS, max. 75mV p-p max.
Temperature Coefficient.....		±0.02%/°C max.
Short Circuit Protection.....		Continuous
Line Regulation <sup>1</sup> , Single / Dual Output .....		±0.5% max.
Load Regulation <sup>2</sup> , Single / Dual Output.....		±0.5% max.

#### GENERAL SPECIFICATIONS:

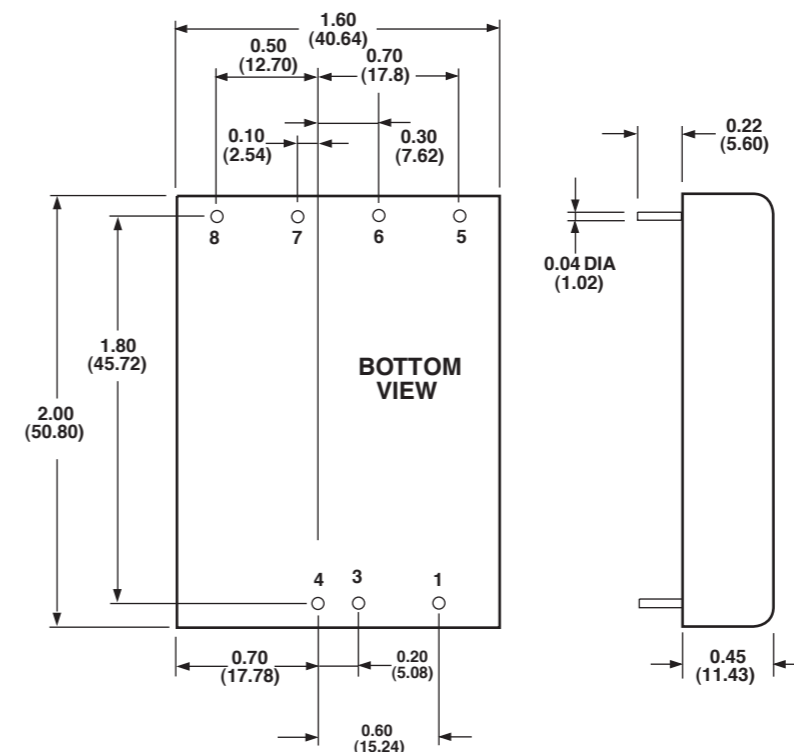
Efficiency.....	See Table
Isolation Voltage.....	1500 VDC min.
Isolation Resistance.....	10 <sup>8</sup> Ohms min.
Switching Frequency .....	300KHz Typ.
Operating Temperature Range.....	-25°C to +71°C
Derating, Above 60°C.....	Linearly to Zero Power at + 100°C
Case Temperature.....	100°C max.
Storage Temperature Range.....	-55°C to +105°C
EMI / RFI.....	Six Sided Continuous Shield
Dimensions .....	2 x1.6 x 0.45 inches (50.8 x 40.64 x 11.43mm)
Case Material .....	Black Coated Copper with Non-Conductive Base
Weight.....	.53g

#### NOTE:

1. Measured From High Line to Low Line.
  2. Measured From Full Load to 1/4 Load.
  3. Remote On/Off Control:  
Logic Compatibility.....CMOS or Open Collector TTL
- EC-ON.....>+5.5VDC or Open Circuit  
EC-OFF.....< 1.8 VDC  
Control Common.....Referenced to Input Minus

### CASE SC

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



PIN CONNECTION		
Pin	Single Output	Dual Output
1	On/Off Control	On/Off Control
3	-Vin	-Vin
4	+Vin	+Vin
5	Trim	Trim
6	-Vout	-Vout
7	+Vout	Common
8	No Pin	+Vout

#### External Output Trimming

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

