RSG Electronic Components GmbH ▪ Sprendlinger Landstr. 115 ▪ D-63069 Offenbach/Germany
Tel. +49 69 984047-0 ▪ Fax +49 69 984047-77 ▪ info@rsg-electronic.de ▪ **www.rsg-electronic.de**
Änderungen vorbehalten / subject to change without notice

EC2SA SERIES

NEW



2 WATT REGULATED DC-DC CONVERTERS

RoHS

Features

- 2W Isolated Output
- SIP-8 Package
- Efficiency to 83%
- 2:1 Input Range
- Regulated Outputs
- Remote On/Off Control
- 1500VDC Isolation
- Continuous Short Circuit Protection

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	CASE
			MIN.	MAX.	NO LOAD	FULL LOAD		
EC2SA-05S33		3.3VDC	0 mA	500 mA		458 mA	72	
EC2SA-05S05		5VDC	0 mA	400 mA		526 mA	76	
EC2SA-05S12		12VDC	0 mA	167 mA		507 mA	79	
EC2SA-05S15	4.5-9.0 VDC	15VDC	0 mA	134 mA	60 mA	503 mA	80	SIP-8
EC2SA-05D05		±5VDC	±0 mA	±200 mA		526 mA	76	
EC2SA-05D12		±12VDC	±0 mA	±83 mA		498 mA	80	
EC2SA-05D15		±15VDC	±0 mA	±67 mA		503 mA	80	
EC2SA-12S33		3.3VDC	0 mA	500 mA		186 mA	74	
EC2SA-12S05		5VDC	0 mA	400 mA		214 mA	78	
EC2SA-12S12		12VDC	0 mA	167 mA		206 mA	81	
EC2SA-12S15	9-18 VDC	15VDC	0 mA	134 mA	30 mA	204 mA	82	SIP-8
EC2SA-12D05		±5VDC	±0 mA	±200 mA		208 mA	80	
EC2SA-12D12		±12VDC	±0 mA	±83 mA		202 mA	82	
EC2SA-12D15		±15VDC	±0 mA	±67 mA		204 mA	82	
EC2SA-24S33		3.3VDC	0 mA	500 mA		90 mA	76	
EC2SA-24S05		5VDC	0 mA	400 mA		107 mA	78	
EC2SA-24S12		12VDC	0 mA	167 mA		103 mA	81	
EC2SA-24S15	18-36 VDC	15VDC	0 mA	134 mA	18 mA	102 mA	82	SIP-8
EC2SA-24D05		±5VDC	±0 mA	±200 mA		107 mA	78	
EC2SA-24D12		±12VDC	±0 mA	±83 mA		102 mA	81	
EC2SA-24D15		±15VDC	±0 mA	±67 mA		102 mA	82	
EC2SA-48S33		3.3VDC	0 mA	500 mA		46 mA	74	
EC2SA-48S05		5VDC	0 mA	400 mA		53 mA	78	
EC2SA-48S12		12VDC	0 mA	167 mA		51 mA	82	
EC2SA-48S15	36-75 VDC	15VDC	0 mA	134 mA	9 mA	50 mA	83	SIP-8
EC2SA-48D05		±5VDC	±0 mA	±200 mA		53 mA	78	
EC2SA-48D12		±12VDC	±0 mA	±83 mA		50 mA	83	
EC2SA-48D15		±15VDC	±0 mA	±67 mA		51 mA	82	

NOTE: 1. Nominal Input Voltage 5, 12, 24 or 48 VDC

Specifications

INPUT SPECIFICATIONS:

Input Voltage Range..... 5V.....4.5-9V
12V.....9-18V
24V.....18-36V
48V.....36-75V
Input Filter.....Capacitive
Remote on/off control :
Module On.....< 1.2VDC or Open Circuit
Module Off.....5.5...15VDC
Module Off (input idle current).....1mA max.

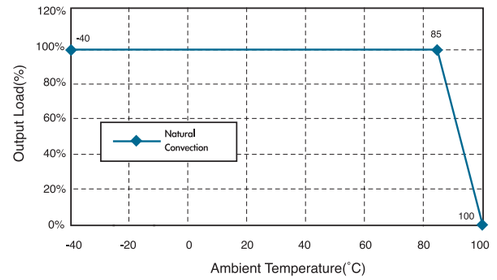
OUTPUT SPECIFICATIONS:

Voltage Accuracy : ..... ±1.5% max.
Voltage Balance(Dual) ..... ±1.0% max.
Cross regulation(Dual)[1].....Asymmetrical load 25%/100%.....±5.0% max.
Transient Response: 25% Step Load Change
Error Band ..... ±6% Vout nominal
Recovery Time .....< 500us
Ripple & Noise, 20MHz BW..... 75mV pk-pk, max.
Temperature Coefficient..... ±0.03%/°C
Line Regulation[2] ..... ±0.5% max.
Load Regulation[3].....Single..... ±0.5% max.
Dual..... ±1.0% max.
Output Short Circuit Protection ..... Continuous

GENERAL SPECIFICATIONS:

Efficiency.....See Table
Isolation Voltage .....1500VDC min.
Isolation Resistance .....10^9 ohm min.
Switching Frequency .....100KHz min.
Operating Ambient Temperature..... -40°C to +85°C
De-rating, Above 85°C ..... Linearly to Zero power at 100°C
Case Temperature[4]..... 100°C max.
Cooling.....Natural Convection
Storage Temperature ..... -55°C to +125°C
Dimensions .....0.86×0.36x0.44 inches(21.80x9.20×11.10 mm)
Case Material ..... Non-Conductive Black Plastic
Weight.....4.8g

EC2SA Series Derating Curve



NOTE:

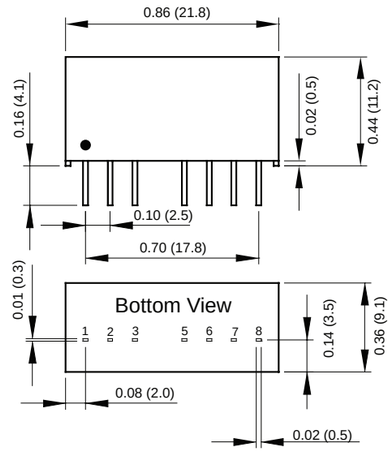
1. For asymmetric loading, Both channels must be at 25% load or more.
2. Measured From High Line to Low Line
3. Measured From Full Load to 10% Load
4. Maximum case temperature under any operating condition should not exceed 100°C.

PIN CONNECTION

Pin	Single Output	Dual Outputs
1	-V Input	-V Input
2	+V Input	+V Input
3	CTRL	CTRL
5	NC	NC
6	+V Output	+V Output
7	-V Output	Common
8	NC	-V Output

CASE A

All Dimensions In Inches(mm)
Tolerance Inches: .xx= ±.02, .xxx= ±.002
Millimeters: .x= ±.5, .xx= ±.05



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