EC8AW Series

Features:

- 15W isolated output
- DIP-24 metal package
- Very high efficiency up to 90%
- Low input current at no load
- 4:1 input range
- Regulated outputs
- Conductive EMI meets EN55-22 Class A
- Without external components
- Continuous short circuit protection
- No tantalum capacitor inside
- CE mark meets 2004/108/EC
- Safety meets UL60950-1, EN60950-1 and IEC60950-1

EC8AW Specifications

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		%EFF.		CAPACITIVE LOAD MAX.
			MN.	MAX.	NO LOAD	FULL LOAD	(2)	(3)	
EC8Aw-24S33	9-36VDC	3.3VDC	0mA	4000mA	8mA	625mA	88	88	4000uF
EC8Aw-24S05	9-36VDC	5VDC	0mA	3000mA	8mA	694mA	90	90	3000uF
EC8Aw-24S12	9-36VDC	12VDC	0mA	1250mA	8mA	694mA	90	90	1250uF
EC8Aw-24S15	9-36VDC	15VDC	0mA	1000mA	8mA	694mA	90	90	1000uF
EC8Aw-24D12	9-36VDC	±12VDC	0mA	±625mA	8mA	702mA	89	89	625uF
EC8Aw-24D15	9-36VDC	±15VDC	0mA	±500mA	8mA	694mA	90	90	500uF
EC8Aw-48S33	18-75VDC	3.3VDC	0mA	4000mA	6mA	309mA	89	89	4000uF
ECL8Aw-48S05	18-75VDC	5VDC	0mA	3000mA	6mA	347mA	90	90	3000uF
EC8Aw-48S12	18-75VDC	12VDC	0mA	1250mA	6mA	347mA	90	90	1250uF
EC8Aw-48S15	18-75VDC	15VDC	0mA	1000mA	6mA	347mA	90	90	1000uF
EC8Aw-48D12	18-75VDC	±12VDC	0mA	±625mA	6mA	351mA	89.5	89.5	625uF
EC8Aw-48D15	18-75VDC	±15VDC	0mA	±500mA	6mA	347mA	90	90	500uF

Note: 1. Nominal input voltage 24, 48 VDC
2. Measure at 12VDC for EC8AW 24Vin, 24VDC for EC8AW 48Vin
3. Measure at nominal input voltage

SPECIFICATIONS

INPUT SPECIFICATIONS:

Input Voltage Range ..... 24V 9-36V
48V 18-75V
Input Surge Voltage (100ms max.) ..... 24V ..... 50Vdc max.
48V .... 100Vdc max.
Under voltage lockout ..... 24Vin power up 8.8V
24Vin power down 8V
48Vin power up 17V
48Vin power down 16V
Input Filter ..... PI Type
Remote on/off Control
Logic Compatibility ..... CMOS or Open Collector TTL, Referenced to –Vin
Module On ..... >3.5VDC to Vin or Open Circuit
Module Off ..... <1.2VDC

OUTPUT SPECIFICATIONS:

Voltage Accuracy ..... ±1.5% max.
Voltage Balance(Dual) ..... ±1.0% max.
Transient Response: 75% - 100% Step Load Change
Error Band ..... ±5% Vout Nominal
Recovery Time ..... < 250us
Ripple & Noise, 20MHz BW (Note3)..... Single ..... 75mV pk-pk max.
Dual ..... 75mV pk-pk max.
Temperature Coefficient ..... ±0.03%/°C
Line Regulation (note1) ..... Single ..... ±0.2% max.
Dual ..... ±0.5% max.
Load Regulation (note2) ..... Single ..... ±0.5% max.
Dual ..... ±1.0% max.
Cross Regulation (Dual Output) Load Cross Variation 10%/100% ... ±5% max.
Current Limit ..... 110% - 160% Nominal Output
Output Short Circuit Protection ..... Continuous (Hiccup Mode)
Over Voltage Protection (Zener Diode Clamp)
3.3V ..... 3.9Vdc typ., 5V ..... 6.2Vdc typ.
12V ..... 15Vdc typ., 15V ..... 18Vdc typ.
Start up time .... 15ms typ.

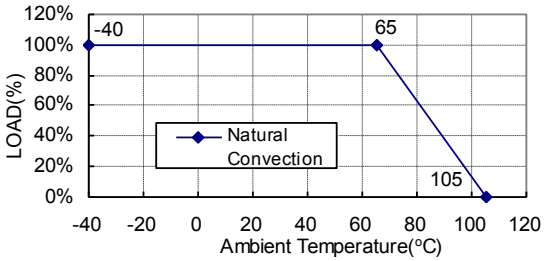
GENERAL SPECIFICATIONS:

Efficiency.....See Table
Isolation Voltage ..... Input/Output ..... 1500VDC min.
Isolation Resistance ..... 10^9 ohm min.
Isolation Capacitance.....1000pF typ.
Switching Frequency ..... 300KHz typ.
EMI/RFI..... Conductive EMI Meet EN55022 Class A
Operating Ambient Temperature ..... -40□ to +85□
De-rating, Above 65□ ..... Linearly to Zero power at 105□
Case Temperature (note4) ..... 105□ max.
Cooling ..... Natural Convection
Storage Temperature ..... -40□ to +125□
Humidity ..... 95% RH max. Non condensing
MTBF ..... MIL-STD-217F, GB, 25□, Full Load ..... TBD hrs
Dimensions ..... DIP ..... 1.25x0.80x0.40 inches(31.8x20.3x10.2 mm)
Case Material ..... Black Coated Copper with Non-Conductive Base
Weight 18g

NOTE:

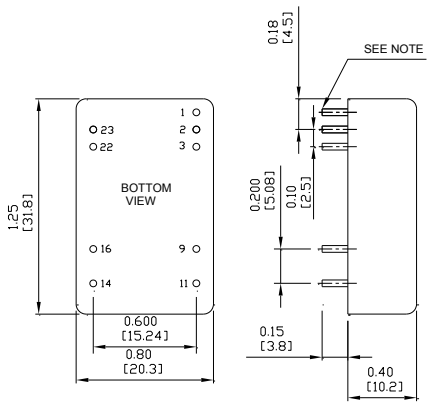
1. Measured from high line to low line.
2. Measured from full load to min. load.
3. Measured with 0.1uF MLCC.
4. Maximum case temperature under any operating condition should not be exceeded 105□.

Typical Derating curve for Natural Convection



Case A Dimensions:

NOTE:Pin Size is 0.02¡ Ó0.002 Inch (0.5¡ Ó0.05 mm)DIA
All Dimensions In Inches (mm)
Tolerances Inches: X.XX= ¡ Ó0.02 , X.XXX= ¡ Ó0.010
Millimeters: X.X= ¡ Ó0.5 , X.XX=¡ Ó0.25



PIN CONNECTION		
Pin	Single Output	Dual Output
1	Remote on/off	Remote on/off
2,3	-V Input	-V Input
4,5	NP	NP
9	NP	Common
10	NP	NP
11	NC	-V Output
12	NP	NP
13	NP	NP
14	+V Output	+V Output
15	NP	NP
16	-V Output	Common
20,21,24	NP	NP
22,23	+V Input	+V Input

* NC-NO CONNECTION WITH PIN
* NP-NO PIN