



E-Star Power Development Co., Ltd. (E-STAR)

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0.5A Open Frame type Non-Isolation DC to Dc power supply < ESWN78B

FEATURES

- SINGLE IN LINE PACKAGE
- 6.5-32V,11-32V,15-32V,18-32V WIDE INPUT RANGE
- 100% BURNED IN
- HIGH EFFICIENCY
- INTERNAL SMD TECHNOLOGY
- UL 94V-0 PACKAGE MATERIAL
- CUSTOM SOLUTIONS AVAILABLE
- RoHS COMPLIANT



PRELIMINARY

OUTPUT SPECIFICATIONS

Voltage Setpoint Accuracy	+/-2% max
Temperature Coefficient	+/-0.05%/°C
Ripple & Noise(20MHz BW) ¹	100mVp-p max
Line Regulation ²	+/-1% max
Load Regulation ³	+/-1% max
Minimum Load	20% of Full Load
Short Circuit Protection	Continuous

INPUT SPECIFICATIONS

Input Voltage Range	6.5 ~ 32V max
Input Filter	Capacitor Typ

GENERAL SPECIFICATIONS

Efficiency	80% min
Isolation Voltage	Non-isolation`
Switching Frequency	280KHz min
Weight	1.3g Typ
Case Material	Non-Conductive Plastic
Case Size	11.6mm*7.6mm*10.14mm
Conducted Emissions	EN55022 Class A
Radiated Emissions	EN55022 Class B

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-25 °C to +70 °C
Case Temperature	+100 °C max
Storage Temperature	-55 °C to +125 °C
Humidity	95% max

ALL SPECIFICATIONS TYPICAL AT NOMINAL LINE, FULL LOAD , AND 25 °C UNLESS OTHERWISE NOTED.

¹ Measured with 1uF ceramic capacitor connect to the output pins.

² Line Regulation is for a 1.0% change in input Voltage.

³ Load Regulation is for output load current change from 20% to 100%.

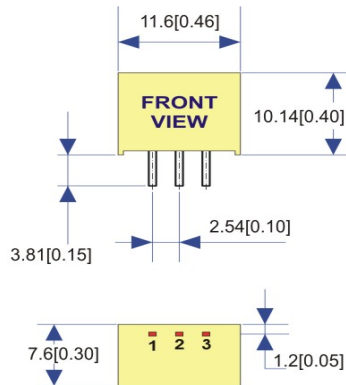
● SELECTION GUIDE

MODEL NUMBER	INPUT VOLTAGE (VDC)	NOMINAL VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT ⁴ CURRENT(mA)		EFF (%) ⁵
					FULL LOAD	NO LOAD	
ESWN78B05	6.5-32	12	5	500	234	5	89
ESWN78B09	11-32	24	9	500	206	10	91
ESWN78B12	15-32	24	12	500	269	10	93
ESWN78B15	18-32	24	15	500	329	10	95

Note: Other input to output voltages may be available. Please contact factory.

● MECHANICAL DIMENSIONS

PACKAGE



PIN	SINGLE
1	+Vin
2	Common
3	+Vout

NOTE: Pin Size is Tolerance 0.50Φ ±0.05mm

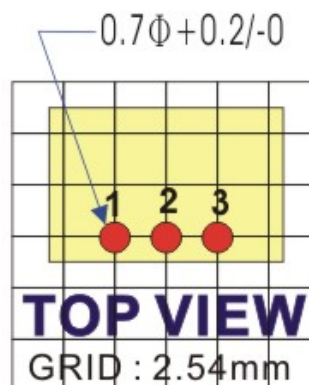
All Dimensions In mm(Inches)

Tolerance .X or .XX= ±0.5mm

All dimensions in mm[inches].

● RECOMMENDED FOOTPRINT DETAILS

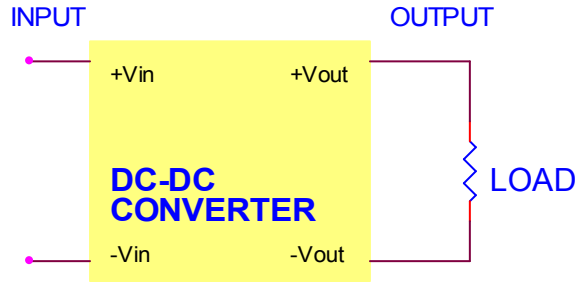
ESWN78BXX SELECTION PACKAGE



⁴ NOMINAL INPUT VOLTAGE.

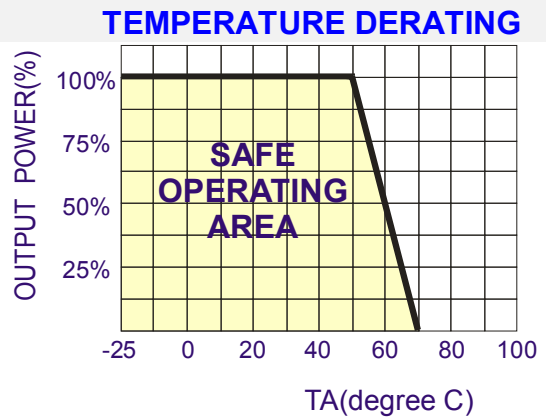
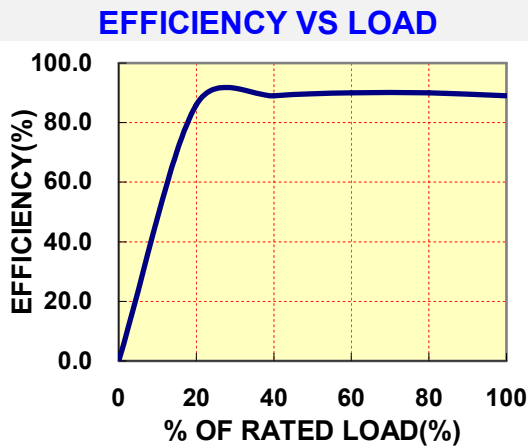
⁵ NOMINAL INPUT VOLTAGE, FULL LOAD.

● **TYPICAL APPLICATIONS**

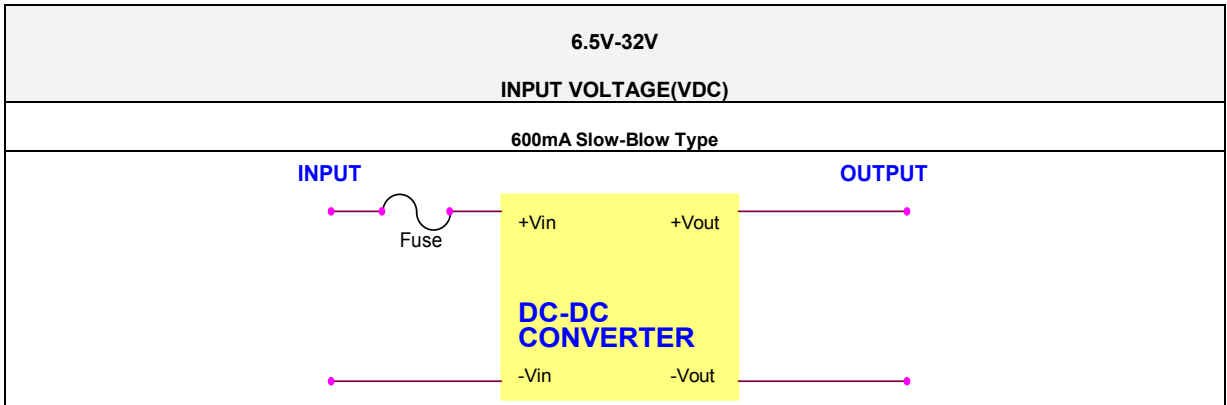


● **TYPICAL PERFORMANCE CURVES**

Specifications typical at $t_a=25^{\circ}\text{C}$, nominal input voltage , rated output current unless otherwise specified.



● **INPUT FUSE SELECTION GUIDE**



Note: Certain applications may require the installation of external fuse in front of the input.

FOR MORE INFORMATION CALL:

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Home Page

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