

Model EPN001

High Efficiency DC — DC Converters

-13 to -24.5 Vdc Output

Variable Negative Bias

Ultra-Compact

General Notes

Structure Thick Film Hybrid IC Loaded with Silicon Semiconductor

Outline 8-lead SIL Synthetic Resin Package

Use Personal Computer

Short Protection DC/DC Converter Shuts Down After an Output Based Short Circuit. Converter Starts Up after Power (V_{IN}) is Turned On and Off.

Avoid Use Around Radiation

Physical Specifications

Dimensions: 13 mm x 28.5 mm x 6.5 mm
 (0.512" x 1.12" x 0.256")

Operating Temp: -10 to 70 °C

Relative Humidity: 20% to 90%, non-condensing

Storage: -25 to 85 °C/5-95% RH

Electrical Characteristics*

Item	Condition(s)	Standard		
		MIN	TYP	MAX
Input Voltage (V)	—	4.5	—	5.5
Output Voltage (V) ①	$V_{IN} = 4.5 - 5.5 \text{ V}$ $I_{OUT} = 0.0 - 45 \text{ mA}$	-24.5	—	-13.5
Output Current (mA)	$V_{IN} = 4.5 - 5.5 \text{ V}$	0.0	—	45
Ripple & Noise (mVp-p) ②	$V_{IN} = 4.5 - 5.5 \text{ V}$ $I_{OUT} = 0.0 - 45 \text{ mA}$	—	—	200
Total Regulation ③	$V_{IN} = 4.5 - 5.5 \text{ V}$ $I_{OUT} = 0.0 - 45 \text{ mA}$ $T_{OPR} = 0.0 - 60 \text{ °C}$	-5%	—	5%
Efficiency	$V_{IN} = 5.0 \text{ V}$ $I_{OUT} = 30 \text{ mA}$ $VR = 50 \text{ K}\Omega$	70%	—	—

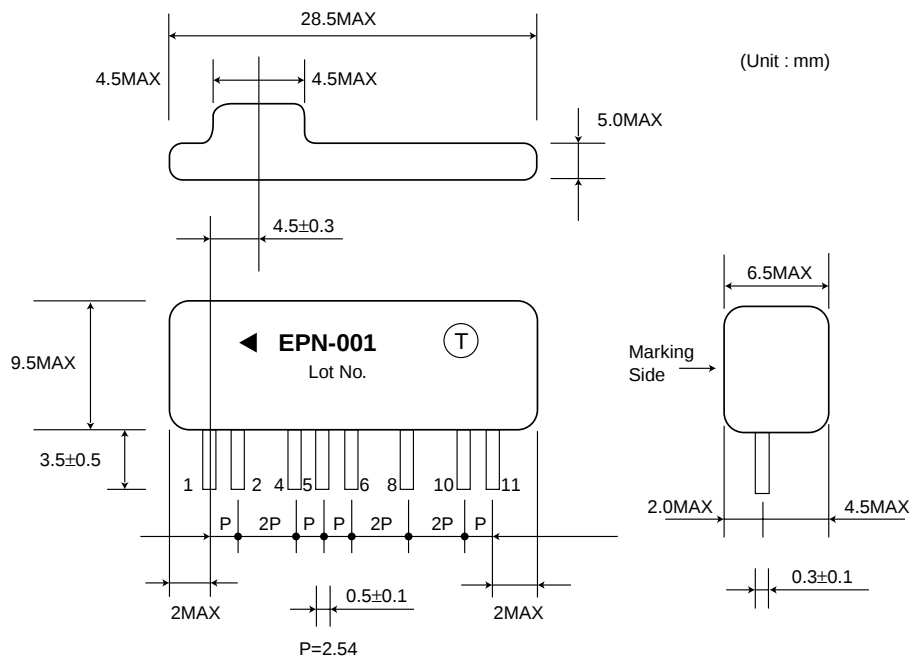
*Above Specifications Occur @ 25 °C
Input-Side Capacitor = 47 $\mu\text{F}/35 \text{ V}$. Output-Side Capacitor = LXF35VB27 (Nippon Chemicon Co. Ltd.) unless otherwise noted

- ① Adjustable by VR (100 K Ω)
② Tester to Syncroscope (100 MHz)
③ VR (100 K Ω) is not moved

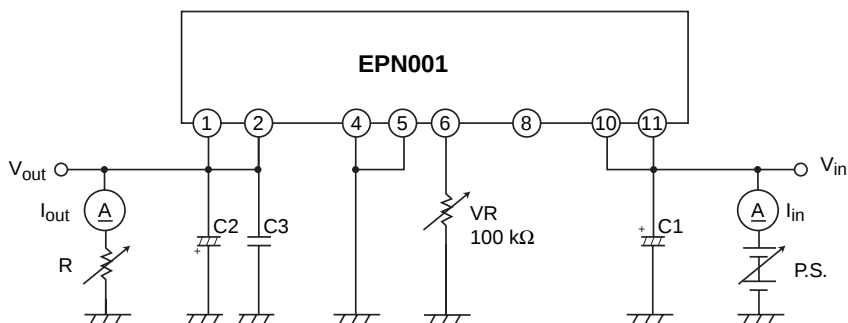
Model

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Outline Dimensions



Test Circuit



Test Conditions:

C1: 47 μ F / 35 V

C2: LXF35VB27 (Nippon Chemicon Co., Ltd.)

C3: Ceramic Capacitor, F, 1 μ F, 35 V

P.S. = DC Power Supply



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