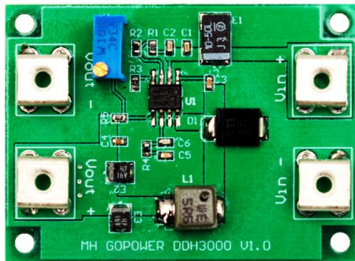


MIH[®] Step-Down DC/DC Converter

DDH3000

Datasheet



Key Features:

- Input Voltage Range: 5V to 42V
- Output Voltage Range: 1V to 41V
- 3.5A Output Current
- Efficiency up to 90%

Applications:

- Power over Fiber (PoF)
- Remote Sensors
- Portable Products
- Battery-Operated Devices

Product Description

MH GoPower (“MHGP”) provides high efficiency step-down DC/DC converter modules which are capable of supplying up to 3.5A of load current. With 5V to 42V input operating range, users can set the output voltage from 1V to 41V. The DDH3000 also incorporates undervoltage lockout (UVLO) safety feature to disable the converter and maintain a low quiescent current state when the input voltage falls below 4.3V. Although the DDH3000 is designed for use with MHGP’s VMJ PV Cells and Power Beaming Demo Kit (PBDK), it can also be used as a general purpose step-down DC/DC converter.

Absolute Maximum Ratings

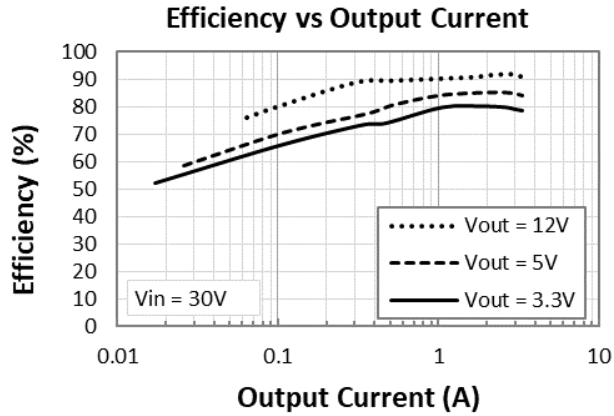
Parameter	Rating
Input Voltage	-0.3V ~ 45V
Output Current	0 ~ 3.5A
Operating Temperature	-40°C ~ 85°C
Storage Temperature	-40°C ~ 105°C

Electrical Characteristics *

Parameter	Setting	MIN	TYP	MAX
Input Voltage (Vin)	-	5.0V	-	42V
Output Voltage (Vout)	Vin = 30V, Vset = 3.3V	3.19V	3.28V	3.32V
	Vin = 30V, Vset = 5.5V	4.99V	5.05V	5.20V
	Vin = 30V, Vset = 12V	12.05V	12.13V	12.16V
Vin Undervoltage Lockout Threshold (V _{UVLO})	-	4.1V	4.3V	4.48V
Ripple	-	-	-	200mVp-p

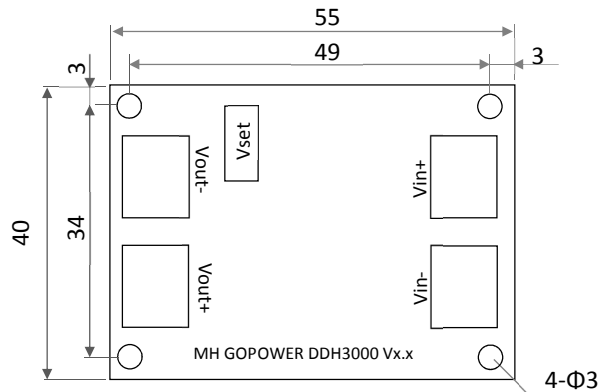
* Typical converter performance with ambient temp of ~25°C

DDH3000 Efficiency



Mechanical Demensions and Pin Configurations

(Unit: mm)



Weight: 15g

Vset: adjusting output voltage