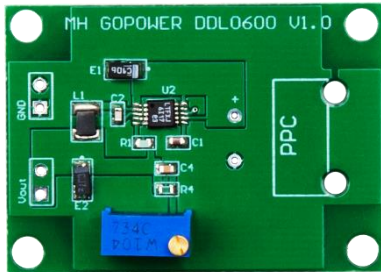


Step-Down DC/DC Converter

DDL0600

Datasheet



Key Features:

- Input Voltage Range: 2.5V to 15V
- Output Voltage Range: 1.3V to 13.8V
- 300mA 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 low power step-down DC/DC converter modules which are capable of supplying up to 300mA of load current. With 2.5V to 15V input operating range, users can set the output voltage from 1.3V to 13.8V. The DDL0600 also incorporates undervoltage lockout (UVLO) safety feature to disable the converter and maintain a low quiescent current state when the input voltage falls below 2.1V. Although the DDL0600 is designed for MHGP’s YCH-L series Photovoltaic Power Converters (PPCs), it can also be used as a general purpose step-down DC/DC converter.

Absolute maximum ratings of DDL0600

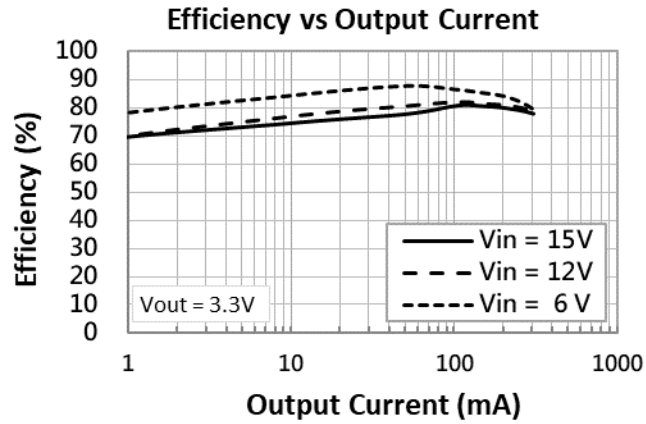
Parameter	Rating
Input Voltage	-0.3V ~ 18V
Output Current	0 ~ 300mA
Operating Temperature	-40°C ~ 85°C
Storage Temperature	-40°C ~ 105°C

Electrical Characteristics of DDL0600 *

Parameter	Setting	MIN	TYP	MAX
Input Voltage (Vin)	-	2.5V	-	15V
Output Voltage (Vout)	Vin = 6V, Vset = 3.3V	3.08V	3.33V	3.35V
	Vin = 12V, Vset = 3.3V	3.35V	3.38V	3.42V
	Vin = 15V, Vset = 3.3V	3.35V	3.40V	3.44V
Vin Undervoltage Lockout Threshold (V _{UVLO})	-	-	2.1V	2.5V
Ripple	Vin = 6V, R _L = 11 Ω	-	-	100mVp-p

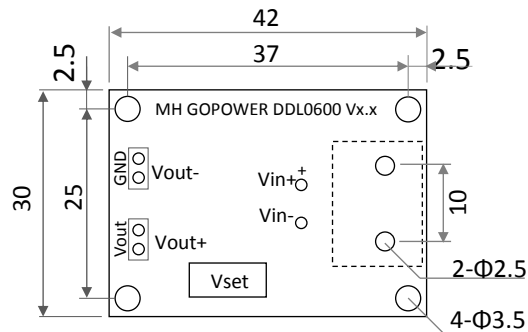
* Typical converter performance with ambient temp of ~25°C

DDL0600 Efficiency



Mechanical Dimensions and Pin Configurations

(Unit: mm)



Weight: 7g

PPC installation area: YCH-L series PPC (available for purchase)

Vset: adjusting output voltage