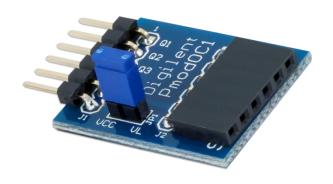


## PmodOC1™ Reference Manual

Revised April 12, 2016 This manual applies to the PmodOC1 rev. C

### **Overview**

The Digilent PmodOC1 uses open-collector BJT's to drive high current applications.



The PmodOC1.

#### Features include:

- Four 100mA (200mA max) MMBT3904 transistors
- Four output clamp diodes
- 40V voltage threshold
- Small PCB size for flexible designs 1.0" × 0.8'' (2.54 cm × 2.0 cm)
- 6-pin Pmod port with GPIO interface
- Follows Digilent Pmod Interface Specification Type 1

#### **Functional Description** 1

The PmodOC1 utilizes MMBT3904 transistors in an open collector format. Each transistor can drive up to 100 mA of current individually and can draw up to 200 mA of current.

#### Interfacing with the Pmod 2

The Pmod communicates with the host board via the GPIO protocol. A logic level high voltage will "turn on" the BJT and a logic low signal will keep the BJT "off".



Pin	Signal	Description
1	P1	Output 1
2	P2	Output 2
3	Р3	Output 3
4	P4	Output 4
5	GND	Power Supply Ground
6	VCC	Positive Power Supply

Table 1. Pinout description table.

Any external power applied to the PmodOC1 must be within 2.7V and 5.25V; however, it is recommended that Pmod is operated at 3.3V.

# 3 Physical Dimensions

The pins on the pin header are spaced 100 mil apart. The PCB is 1 inch long on the sides parallel to the pins on the pin header and 0.8 inches long on the sides perpendicular to the pin header.