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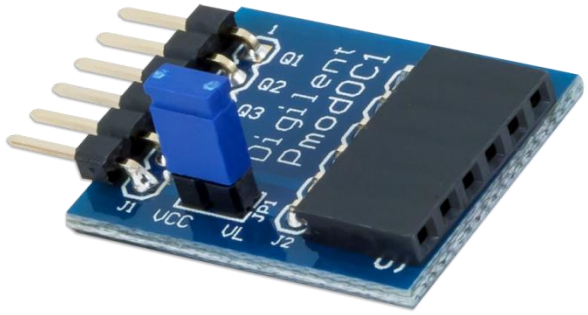
PmodOC1™ Reference Manual

Revised March 30, 2015
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
- 6-pin header and 6-pin connector
- Four output clamp diodes
- 40V voltage threshold

1 Functional Description

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

2 Interfacing with the Pmod

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	P3	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.