

# OPTO-100-05

10kV High Voltage Opto-Coupler

## Features

- **Easy to Use**
- **No External Components Required**
- **Internal Current Limiting Resistors**
- **Small Footprint**
- **10kV Reverse Voltage Rating**
- **Fast Response**
- **Miniature PC Board Mountable Package**
- **Wide Operating Temp Range (-40°C to +85°C)**

RoHS

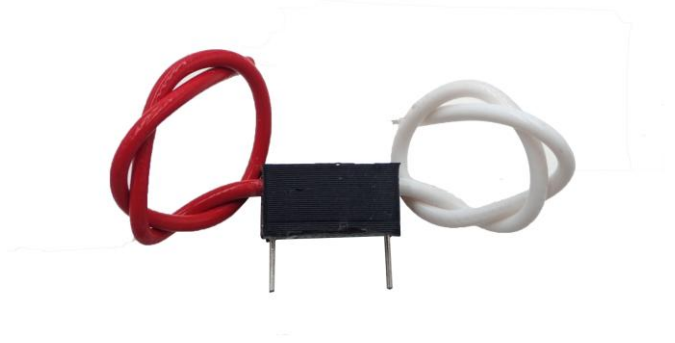


## Mechanical Characteristics

- **Packaging:** Encapsulated in high performance epoxy

## Environmental Characteristics

- **Operating Temp Range:** -40°C to +85°C
- **Storage Temp Range:** -55°C to +85°C

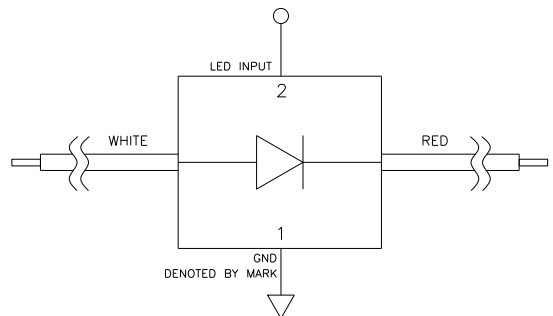


## Description

The **OPTO-100-05** is a miniature; 10kV rated high voltage opto-coupler which integrates low voltage LED drivers with high voltage photo detector diodes. Designed for ease of use, the **OPTO-100-05** delivers circuit isolation in a space-saving (0.40"L x 0.24"W x 0.25"H) encapsulated package.

Typical applications for the **OPTO-100-05** include high voltage switching, high voltage isolation, external voltage sensing, voltage level shifting, and mass spectrometry.

### APPLICATION SCHEMATIC





[www.hvmtech.com](http://www.hvmtech.com)

## ELECTRICAL CHARACTERISTICS

### Absolute Max

LED Forward Current 400 mA

LED Reverse Voltage 5 V

LED Max Input Voltage 5 V

LED Forward Voltage Drop 2.9 V

Photodiode Reverse Voltage 10,000 V

Photodiode Dissipation 1.25 W

### Typical

LED Voltage Input  
@100mA Current Drive 3.25 V

Reverse Leakage Current  
@15,000 V, I<sub>LED</sub> = 0mA <10 nA

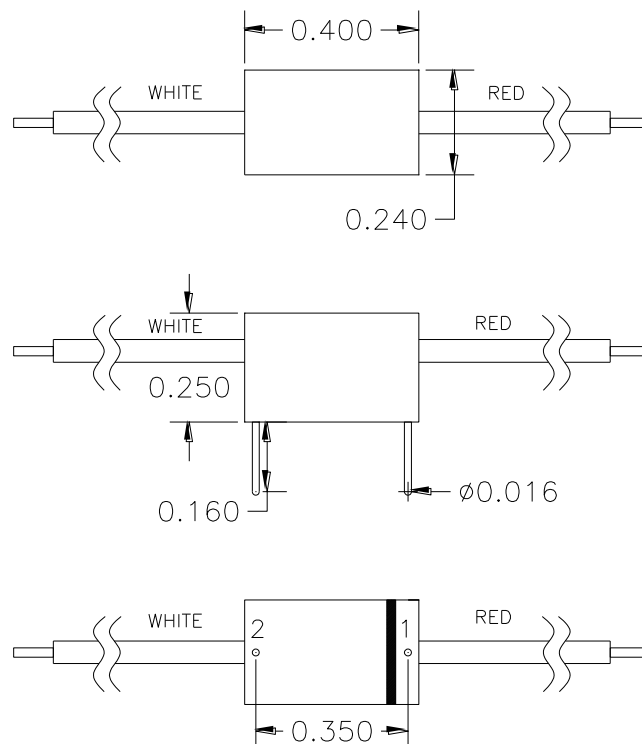
DC Current Transfer Ratio 0.15%

Turn-on Time 2  $\mu$ s

Turn-off Time 2  $\mu$ s

All specifications at 25°C ambient temperature unless otherwise stated.

## DIMENSIONS



## Pin Labels

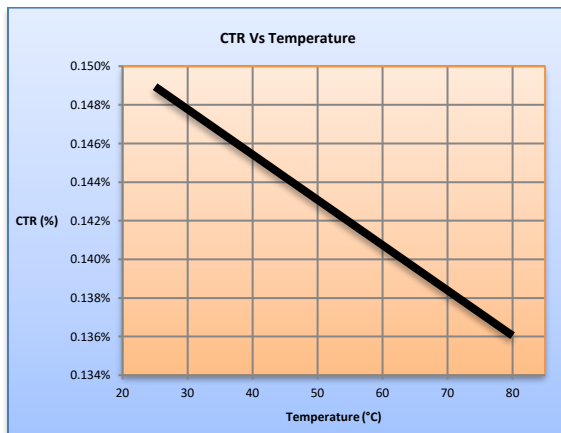
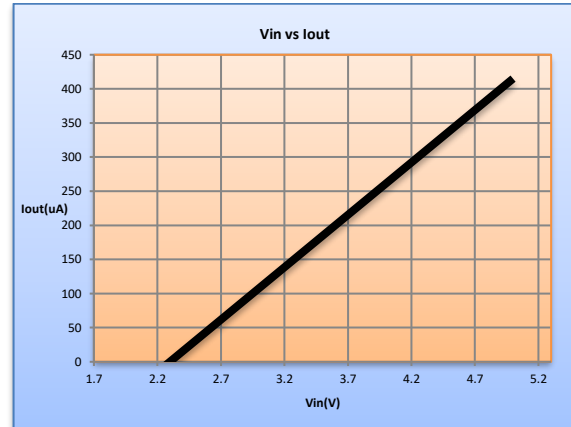
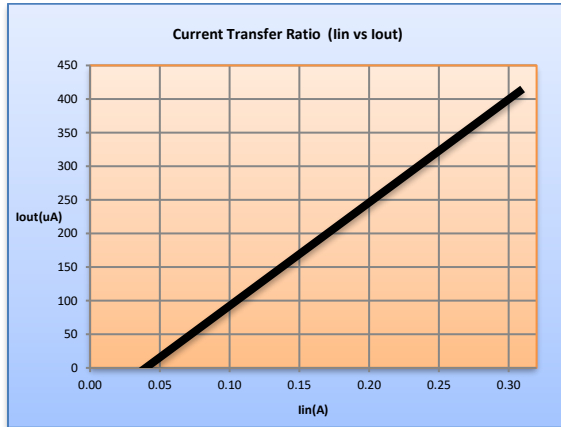
|       |       |
|-------|-------|
| Pin 1 | LED - |
| Pin 2 | LED + |

HVM TECHNOLOGY, INC., 360 McKenna Ave, New Braunfels, TX 78130

Tel: (830) 626-5552 ext 211 / <http://www.hvmtech.com> / email: [sales@hvmtech.com](mailto:sales@hvmtech.com)



[www.hvmtech.com](http://www.hvmtech.com)



HVM TECHNOLOGY, INC., 360 McKenna Ave, New Braunfels, TX 78130  
Tel: (830) 626-5552 ext 211 / <http://www.hvmtech.com> / email: [sales@hvmtech.com](mailto:sales@hvmtech.com)