

OR-100

10kV High Voltage Opto-Relay

Features

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

RoHS

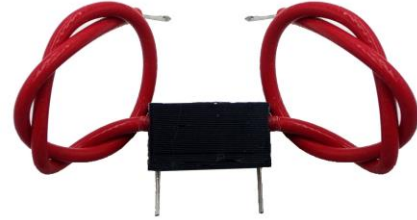


Mechanical Characteristics

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

Environmental Characteristics

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

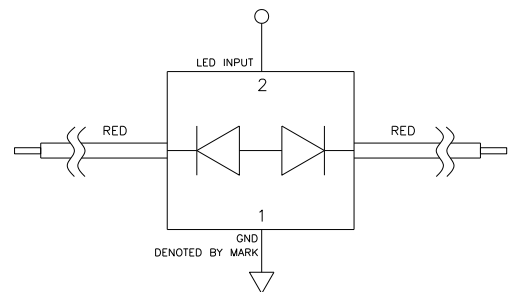


Description

The **OR-100** is a ±10kV rated high voltage opto-relay; which integrates low voltage LED drivers with high voltage photo detector diodes. Designed for ease of use, the **OR-100** delivers circuit isolation in a space-saving encapsulated package.

Typical applications for the **OR-100** include high voltage switching and high voltage isolation.

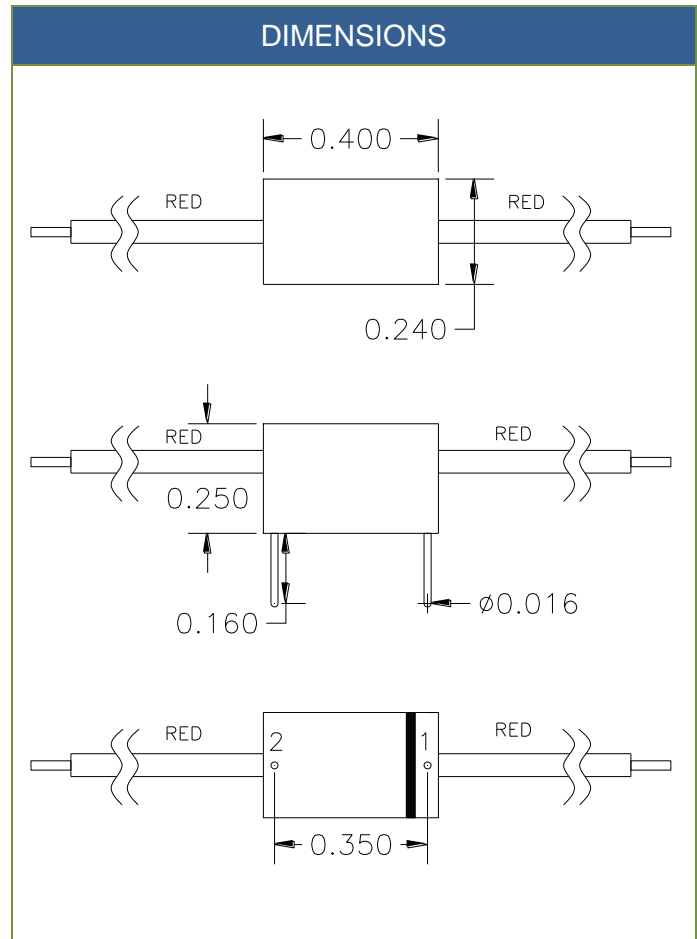
APPLICATION SCHEMATIC





ELECTRICAL CHARACTERISTICS	
Absolute Max	
LED Forward Current	100 mA
LED Reverse Voltage	5 V
LED Max Input Voltage	5 V
LED Forward Voltage Drop	4 V
Photodiode Voltage	$\pm 10,000$ V
Photodiode Dissipation	2 W
Typical	
LED Voltage Input @100mA Current Drive	5 V
Reverse Leakage Current @10,000 V, I _{LED} = 0mA	<10 nA
DC Current Transfer Ratio	0.1%
Turn-on Time	2 μ s
Turn-off Time	2 μ s

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



Pin Labels	
Pin 1	LED -
Pin 2	LED +



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