



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

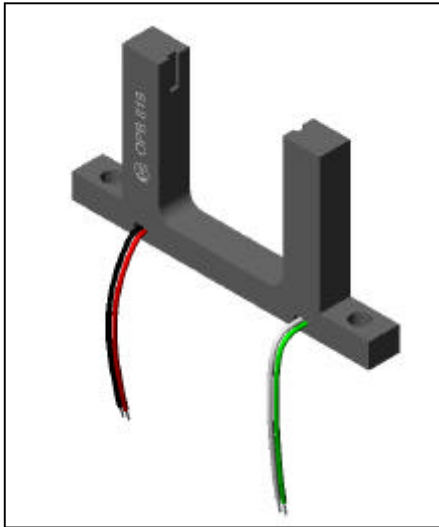
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# Slotted Optical Switch Type OPB819



## Features

- Non-contact switching
- 24" wire leads
- 1.25" (32 mm) wide slot
- 1.38" (35 mm) deep slot

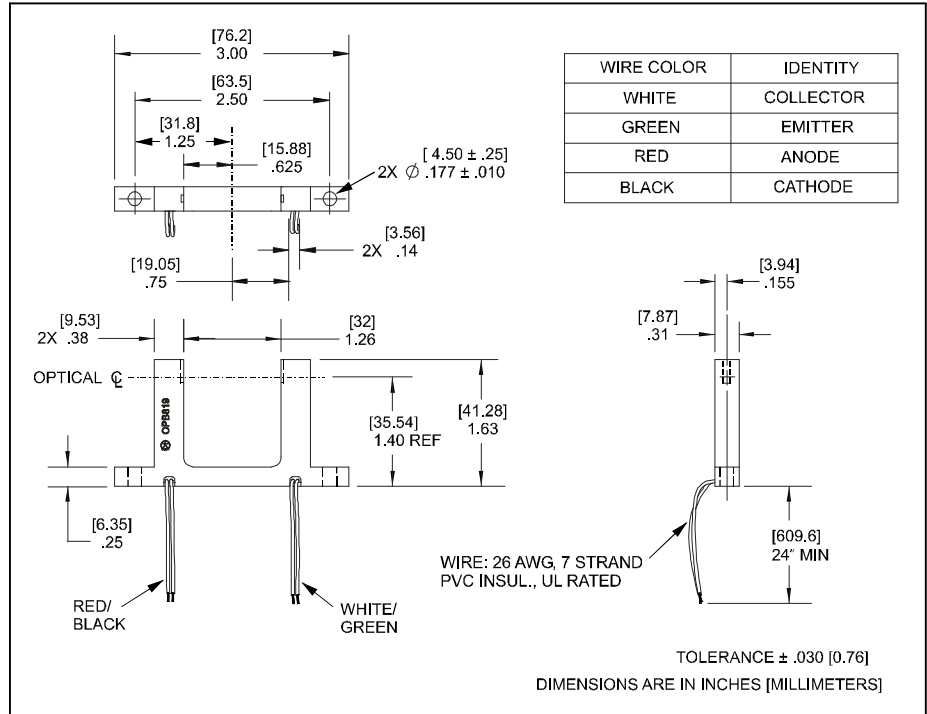
## Description

The OPB819 consists of an infrared emitting diode and NPN silicon phototransistor mounted in a plastic housing on opposite sides of a 1.25" (31.75 mm) wide slot. Phototransistor switching takes place whenever an opaque object passes through the slot.

Custom electrical, wire or cabling is available.

Contact your local representative or Optek for more information.

Visit our website at [www.optekinc.com](http://www.optekinc.com)  
or email us at [sensors@optekinc.com](mailto:sensors@optekinc.com)



## Absolute Maximum Ratings (T<sub>A</sub> = 25° C unless otherwise noted)

Storage and Operating Temperature Range . . . . . -40° C to +80° C

### Input Diode

Continuous Forward Current . . . . . 50 mA  
Peak Forward Current (1 μs pulse width, 300 pps) . . . . . 3.0 A  
Reverse Voltage . . . . . 2.0 V  
Power Dissipation . . . . . 100 mW<sup>(1)</sup>

### Output Photosensor

Collector-Emitter Voltage . . . . . 30 V  
Emitter-Collector Voltage . . . . . 5.0 V  
Power Dissipation . . . . . 100 mW<sup>(1)</sup>

### NOTES:

- (1) Derate linearly 1.67 mW/° C above 25° C.
- (2) All parameters tested using pulse technique.

**Precautions:** Exposure of the plastic body to chlorinated hydrocarbons and ketones such as thread lock and instant adhesive products will degrade the plastic body. Cleaning agents methanol and isopropanol are recommended. Spray or wipe do not submerge.

# Type OPB819

Electrical Characteristics ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

SYMBOL	PARAMETER	MIN	MAX	UNITS	TEST CONDITIONS
<b>Input Diode</b>					
$V_F$	Forward Voltage		1.8	V	$I_F = 20\text{ mA}$
$I_R$	Reverse Current		100	$\mu\text{A}$	$V_R = 2.0\text{ V}$
<b>Output Phototransistor</b>					
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	30		V	$I_C = 100\ \mu\text{A}$ , $I_F = 0$ , $E_e = 0$
$V_{(BR)ECO}$	Emitter-Collector Breakdown Voltage	5.0		V	$I_E = 100\ \mu\text{A}$ , $I_F = 0$ , $E_e = 0$
$I_{CEO}$	Collector-Emitter Dark Current		100	nA	$V_{CE} = 10.0\text{ V}$ , $I_F = 0$ , $E_e = 0$
<b>Coupled</b>					
$V_{CE(SAT)}$	Collector-Emitter Saturation Voltage		0.40	V	$I_C = 250\ \mu\text{A}$ , $I_F = 40\text{ mA}$
$I_{C(ON)}$	On-State Collector Current	100		$\mu\text{A}$	$V_{CE} = 5.0\text{ V}$ , $I_F = 40\text{ mA}$