

Features

- Compact, moisture resistant package
- Low LED current
- Passive resistance output

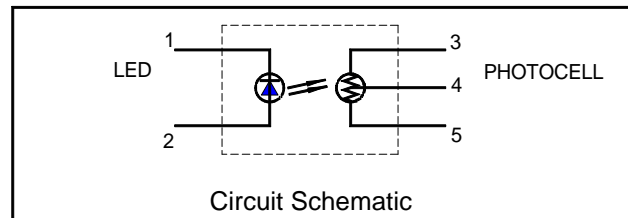
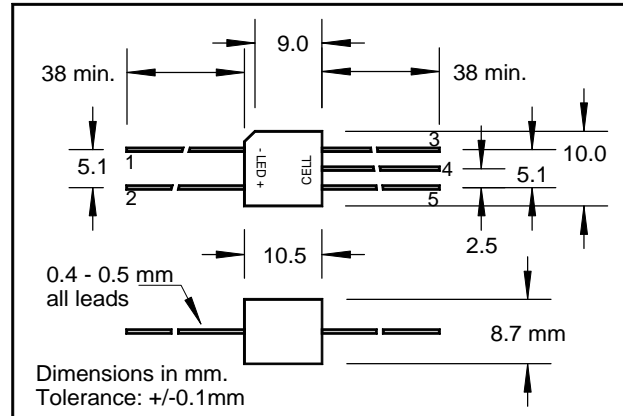
Description

This optical coupler consists of an LED input optically coupled to a photocell. The photocell resistance is high when the LED current is "off" and low resistance when the LED current is "on".

Absolute Maximum Ratings

| | |
|---------------------------|--------------|
| Storage Temperature | -40 to +75°C |
| Operating Temperature | -40 to +75°C |
| Soldering Temperature (2) | 260°C |
| Isolation Voltage (peak) | 2500V |

- Note: (1) Derate linearly to 0 at 75°C
 (2) >2 mm from case for <5 sec.
 (3) The Rise Time, T_R , is the time required for the dark to light change in conductance to reach 63% of its final value.



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

| Symbol | Parameter | Min | Typ | Max | Units | Test Conditions |
|----------------|------------------------|-----|-----|----------|------------|--|
| LED | | | | | | |
| I_F | Forward Current | | | 40 | mA | |
| V_F | Forward Voltage | | | 2.5 | V | $I_F = 20 \text{ mA}$ |
| V_R | Reverse Voltage | | | 3.0 | V | |
| Cell | | | | | | |
| V_C | Maximum Cell Voltage | | | 100 | V | (Peak AC or DC) |
| P_D | Power Dissipation | | | 175 | mW | (1) |
| Coupled | | | | | | |
| R_{ON} | On Resistance | | 1.5 | | K Ω | $I_F = 1.0 \text{ mA}$ |
| | | | 150 | 500 | Ω | $I_F = 10 \text{ mA}$ |
| R_{OFF} | Off Resistance | 400 | | | K Ω | 10 sec after $I_F = 0$. |
| T_R | Rise Time | | 6.0 | | msec | Time to 63% of final conductance @ $I_F=40\text{mA}$ (3) |
| T_F | Decay Time | | | 1.5 | sec | Time to 100K Ω after removal of $I_F = 40 \text{ mA}$ |
| R_M | On Resistance Matching | | | ± 25 | % | $I_F = 1.0 \text{ mA}$ and $I_F = 10 \text{ mA}$ |

Specifications subject to change without notice.

102294 REV 3