NSL-37V54

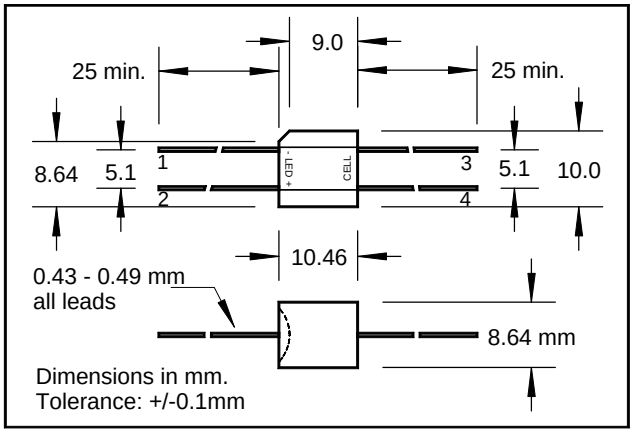
Optocoupler

Features

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

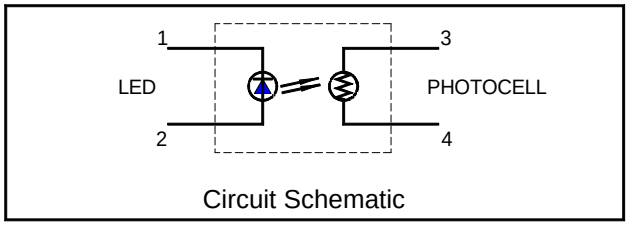
Description

This optocoupler 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



Circuit Schematic

Electrical Characteristics (T_A=25°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 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 (3)		75		KΩ	I_F = 1.0 mA
			10		KΩ	I_F = 10 mA
			2.0	3.5	KΩ	I_F = 40 mA
R_{OFF}	Off Resistance	100			MΩ	10 sec after I_F = 0.
T_R	Rise Time		3.5		msec	Time to 63% of final conductance @ I_F=1mA (4)
T_F	Decay Time			50	msec	Time to 1MΩ

Specifications subject to change without notice.

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Note: (1) Derate linearly to 0 at 75°C
(2) >2 mm from case for <5 sec.
(3) Measured after 24 hours at 20 mA.
(4) The Rise Time, T_R, is the time required for the dark to light change in conductance to reach 63% of its final value

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