NSL-32H-100 Series

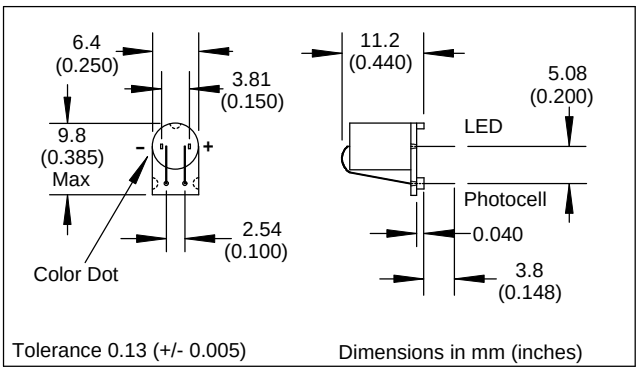
Optocouplers

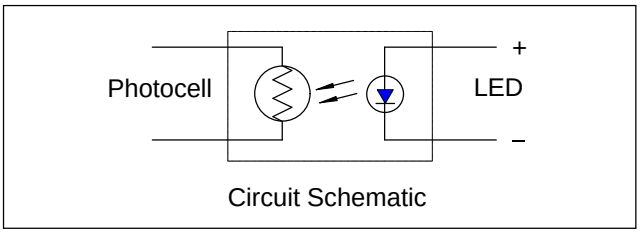
Features

- 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 when the LED current is “on”. These optocouplers are mounted on a lead spacer platform that facilitates mounting on a PCB. The color of the platform indicates the unit “on” resistance, (see table).





Absolute Maximum Ratings

Storage Temperature	-40 to +70°C
Operating Temperature	-40 to +70°C
Soldering Temperature (1)	260°C
Isolation Voltage (peak)	2000V

Electrical Characteristics (T_A=25°C unless otherwise noted)

Symbol	Parameter	Min	Typ	Max	Units	Test Conditions
LED						
I_F	Forward Current			40	mA	(Derate linearly to 0 at 75°C)
V_F	Forward Voltage			2.0	V	I_F = 16 mA
I_R	Reverse Current			100	µA	V_R = 4V
Cell						
V_C	Maximum Cell Voltage			60	V	(Peak AC or DC)
P_D	Power Dissipation			50	mW	(Derate linearly to 0 at 75°C)
Coupled						
R_{ON}	On Resistance:					I_F = 1 mA (2)
	NSL-32H-101			750	Ω	(Black)
	NSL-32H-102	0.75		0.96	KΩ	(Red)
	NSL-32H-103	0.90		1.65	KΩ	(Blue)
	NSL-32H-104	1.54		2.80	KΩ	(Yellow)
R_{OFF}	Off Resistance	500			KΩ	10 sec after I_F = 0, 4Vdc on cell.
T_R	Rise Time		3.5		msec	Time to 63% of final conductance @ I_F = 16mA (3)
T_F	Decay Time			500	msec	Time to 100KΩ after removal of I_F = 16mA
	Cell Temp Coefficient		1.0		%/°C	I_F > 5 mA

Specifications subject to change without notice

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Note: (1) >2 mm from case for <5 sec.
(2) measured after a dark history of 1 week.
(3) Rise time is the time for the dark to light change in conductance to reach 63% of its final value.

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