



# NSL-32H-100 Series

## Optocouplers

### Features

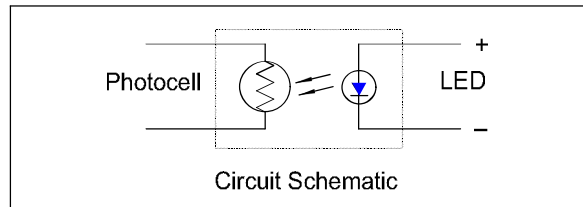
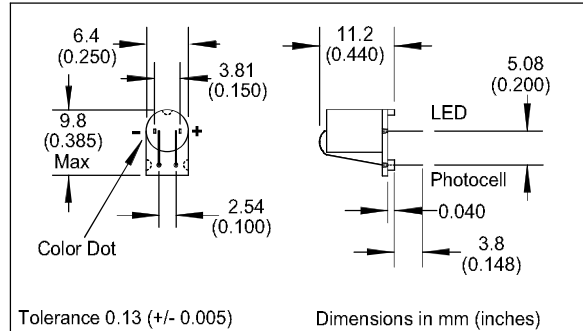
- Compact, moisture resistant package
- Low LED current
- Passive resistance output

### 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<sub>A</sub>=25°C unless otherwise noted)

Symbol	Parameter	Min	Typ	Max	Units	Test Conditions
<b>LED</b>						
I <sub>F</sub>	Forward Current			40	mA	(Derate linearly to 0 at 75°C)
V <sub>F</sub>	Forward Voltage			2.0	V	I <sub>F</sub> = 16 mA
I <sub>R</sub>	Reverse Current			100	μA	V <sub>R</sub> = 4V
<b>Cell</b>						
V <sub>C</sub>	Maximum Cell Voltage			60	V	(Peak AC or DC)
P <sub>D</sub>	Power Dissipation			50	mW	(Derate linearly to 0 at 75°C)
<b>Coupled</b>						
R <sub>ON</sub>	On Resistance:					I <sub>F</sub> = 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 <sub>OFF</sub>	Off Resistance	500			KΩ	10 sec after I <sub>F</sub> = 0, 4Vdc on cell.
T <sub>R</sub>	Rise Time		3.5		msec	Time to 63% of final conductance @ I <sub>F</sub> = 16mA (3)
T <sub>F</sub>	Decay Time			500	msec	Time to 100KΩ after removal of I <sub>F</sub> = 16mA
	Cell Temp Coefficient		1.0		%/°C	I <sub>F</sub> > 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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