

# NSL-32H-100 Series

## **Optocouplers**

#### **Features**

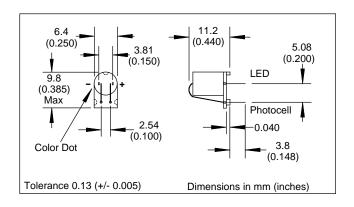
- · Compact, moisture resistant package
- Low LED current
- Passive resistance output

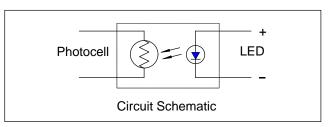
### **Description**

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	Тур	Max	Units	Test Conditions
LED						
I <sub>F</sub>	Forward Current			40	mΑ	(Derate linearly to 0 at 75°C)
$V_{F}$	Forward Voltage			2.0	<b>V</b>	$I_F = 16 \text{ mA}$
$I_R$	Reverse Current			100	μΑ	$V_R = 4V$
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 <sub>ON</sub>	On Resistance:					$I_F = 1 \text{ mA} (2)$
	NSL-32H-101			750	Ω	(Black)
	NSL-32H-102	0.75		0.96	ΚΩ	(Red)
	NSL-32H-103	0.90		1.65	KΩ	(Blue)
	NSL-32H-104	1.54		2.80	ΚΩ	(Yellow)
R <sub>OFF</sub>	Off Resistance	500			ΚΩ	10 sec after I <sub>F</sub> = 0, 4Vdc on cell.
$T_R$	Rise Time		3.5		msec	Time to 63% of final conductance @ I <sub>F</sub> = 16mA
						(3)
$T_F$	Decay Time			500	msec	Time to $100K\Omega$ after removal of $I_F = 16mA$
	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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