



# NSL-32AA

Optocoupler

## Features

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

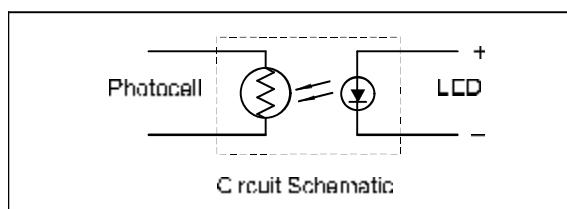
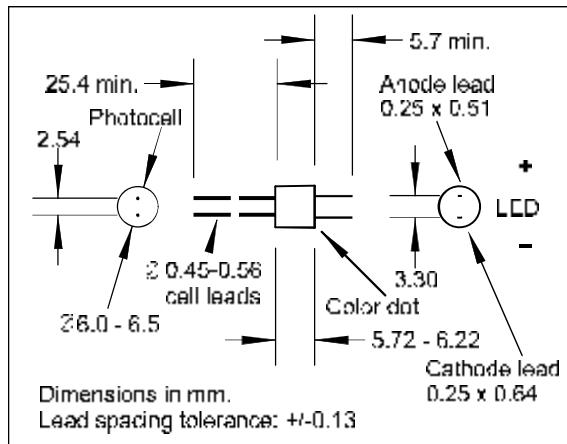
## Description

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 (1)	260°C
Isolation Voltage (peak)	2000V

Note: (1) >2 mm from case for <5 sec.  
 (2) Derate linearly to 0 at 75°C  
 (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
<b>LED</b>						
$I_F$	Forward Current			40	mA	(2)
$V_F$	Forward Voltage			2.0	V	$I_F = 16 \text{ mA}$
$I_R$	Reverse Current			100	$\mu\text{A}$	$V_R = 4\text{V}$
<b>Cell</b>						
$V_C$	Maximum Cell Voltage			60	V	(Peak AC or DC)
$P_D$	Power Dissipation			50	mW	(2)
<b>Coupled</b>						
$R_{ON}$	On Resistance			10	$\text{k}\Omega$	$I_F = 10 \text{ mA}$
$R_{OFF}$	Off Resistance	10			$\text{M}\Omega$	10 sec after $I_F = 0$ , 5Vdc on cell.
$T_R$	Rise Time		3.5		$\text{msec}$	Time to 63% of final conductance @ $I_F = 16\text{mA}$ (3)
$T_F$	Decay Time		12		$\text{msec}$	Time to 100K $\Omega$ after removal of $I_F = 16\text{mA}$
	Cell Temp Coefficient		0.6		%/ $^\circ\text{C}$	$I_F > 5 \text{ mA}$

Specifications subject to change without notice

103094-REF-2

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