



## NSL-32B-100 Series

### Optocouplers

#### Features

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

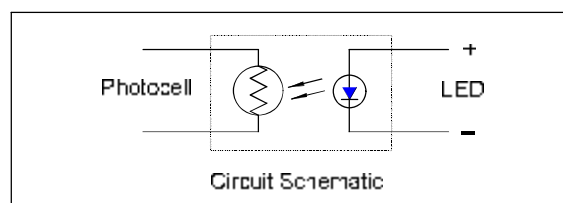
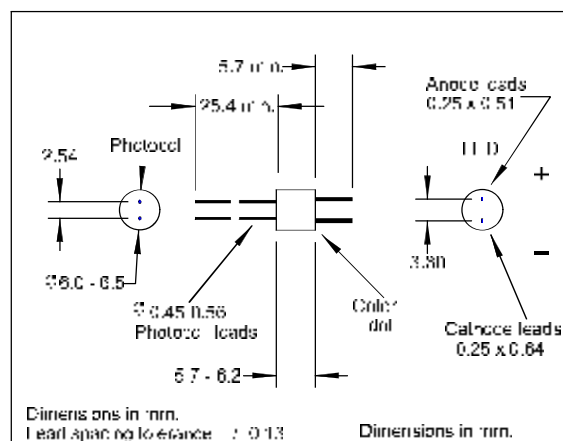
#### Description

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'.

#### Absolute Maximum Ratings

Storage Temperature	-40 to +75°C
Operating Temperature	-40 to +75°C
Soldering Temperature (2)	260°C
Isolation Voltage (peak)	2000V

- Note:
- (1) Derate linearly to 0 at 75°C
  - (2) >2 mm from case for <5 sec.
  - (3) measured after a dark history of 1 week.
  - (4) The Rise Time,  $T_R$ , is the time required for the dark to light change in conductance to reach 63% [ie.  $(1 - 1/e)$ ] 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	(1)
$V_F$	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	(1)
<b>Coupled</b>						
$R_{ON}$	On Resistance:					$I_F = 1 \text{ mA}$ (3)
	NSL-32B-101			750	$\Omega$	
	NSL-32B-102	0.75		0.96	K $\Omega$	
	NSL-32B-103	0.90		1.65	K $\Omega$	
	NSL-32B-104	1.54		2.80	K $\Omega$	
$R_{OFF}$	Off Resistance	500			K $\Omega$	10 sec after $I_F = 0$ , 4Vdc on cell.
$T_R$	Rise Time		3.5		msec	Time to 63% of final conductance @ $I_F = 16 \text{ mA}$ (4)
$T_F$	Decay Time			500	msec	Time to 100K $\Omega$ after removal of $I_F = 16 \text{ mA}$
	Cell Temp Coefficient		1.0		%/°C	$I_F > 5 \text{ mA}$

Specifications subject to change without notice

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