

### Features

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

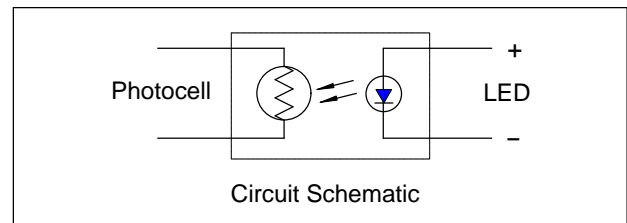
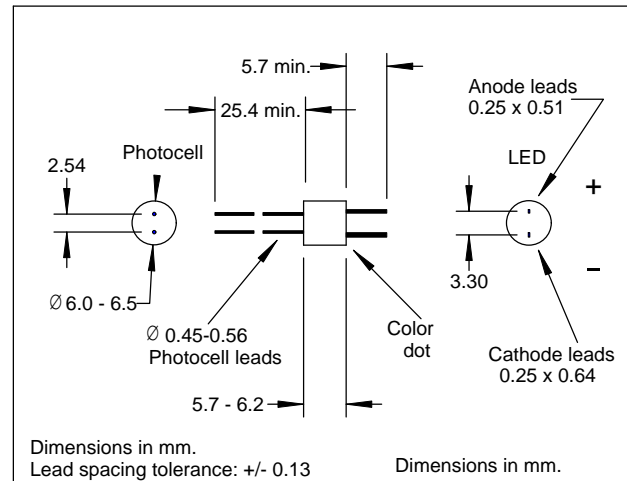
### Description

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	$\text{K}\Omega$	
	NSL-32B-103	0.90		1.65	$\text{K}\Omega$	
	NSL-32B-104	1.54		2.80	$\text{K}\Omega$	
$R_{OFF}$	Off Resistance	500			$\text{K}\Omega$	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		%/ $^\circ\text{C}$	$I_F > 5 \text{ mA}$

Specifications subject to change without notice

103465 REV 0

5200 St. Patrick St., Montreal  
 Que., H4E 4N9, Canada  
 Tel: 514-768-8000  
 Fax: 514-768-8889

QF-84

The Old Railway, Princes Street  
 Ulverston, Cumbria, LA12 7NQ, UK  
 Tel: 01 229 581 551  
 Fax: 01 229 581 554