



NSL-32B-100 Series

Optocouplers

Features

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

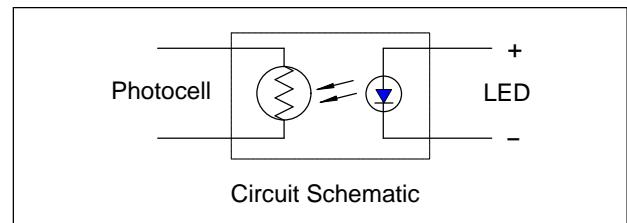
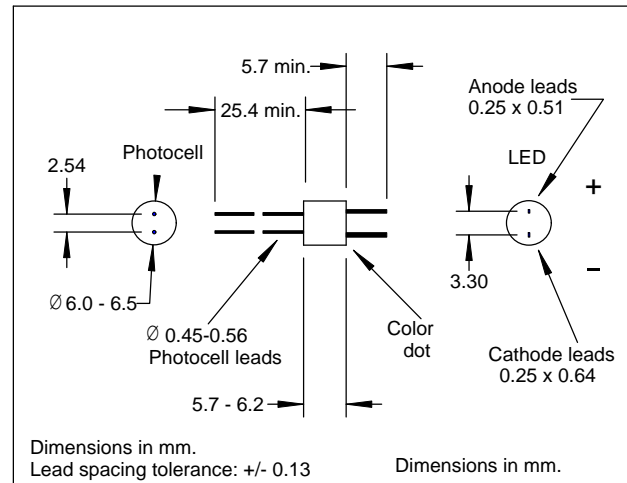
Description

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
LED						
I_F	Forward Current			40	mA	(1)
V_F	Forward Voltage			2.0	V	$I_F = 16 \text{ mA}$
I_R	Reverse Current			100	μA	$V_R = 4 \text{ V}$
Cell						
V_C	Maximum Cell Voltage			60	V	(Peak AC or DC)
P_D	Power Dissipation			50	mW	(1)
Coupled						
R_{ON}	On Resistance:					$I_F = 1 \text{ mA}$ (3)
	NSL-32B-101			750	Ω	
	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 Ω 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

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

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