



DESCRIPTION

This series of 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 different “on” resistance ranges are shown in table below.

FEATURES

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

RELIABILITY

CdS/CdSe photo resistors are temperature sensitive, it should be noted that operation of the photocell above +75°C does not usually lead to catastrophic failure but the photoconductive surface may be damaged leading to irreversible changes in sensitivity

APPLICATIONS

- Industrial sensing

Contact Luna for recommendations on specific test conditions and procedures.

ABSOLUTE MAXIMUM RATINGS

SYMBOL	MIN		MAX	UNITS	
Isolation Voltage	-	-	2000	V	T _a = 23°C UNLESS OTHERWISE NOTED
Operating Temperature	-40	to	+75	°C	non condensing
Storage Temperature	-40	to	+75	°C	-
Soldering Temperature	-	to	+260	°C	>0.05” from case for <5 sec.

OPTO-ELECTRICAL PARAMETERS

T_a = 23°C UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
LED					
Forward Current	-	-	-	40	mA
Forward Voltage	I _f = 20 mA	-	-	2.0	V
Reverse Current	V _R = 4V	-	-	100	μA
CELL					
Maximum Cell Voltage	(Peak AC or DC)	-	-	60	V
Power Dissipation	(1)	-	-	50	mW
COUPLED					
On Resistance	I _f = 1 mA, (3)	-	-	-	-
NSL-32H-101		-	-	750	Ω
NSL-32H-102		0.75	-	0.96	KΩ
NSL-32H-103		0.96	-	1.65	KΩ
NSL-32H-104		1.65	-	2.80	KΩ
Off Resistance	10 sec after I _f = 0 mA, 4V dc on cell	500	-	-	KΩ
Rise Time	Time to 63% of final conductance @ I _f = 16mA	-	3.5	-	msec.
Decay Time	Time to reach 100 KΩ after removal of I _f = 16 mA	-	-	500	msec.
Cell Temp. Coefficient	I _f > 5 mA	-	1.0	-	%/°C

NOTE:

1. Derate linearly to 0 at 75°C
2. Spacer color is un-defined.
3. Measured after a dark history of 1 week.
4. Print "NSL-32H-1XX" and date code "YYWW"