



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”.

RELIABILITY

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

Contact Luna for recommendations on specific test conditions and procedures.

ABSOLUTE MAXIMUM RATINGS

SYMBOL	MIN		MAX	UNITS	(TA)= 23°C UNLESS OTHERWISE NOTED
Isolation Voltage	-	-	2000	V	-
Operating Temperature	-40	to	+75	°C	-
Storage Temperature	-40	to	+75	°C	-
Soldering Temperature	-	-	+260	°C	>0.05" from case for > 5 sec.

FEATURES

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

APPLICATIONS

- Industrial sensing

OPTO-ELECTRICAL PARAMETERS
 $T_a = 23^{\circ}\text{C}$ UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
LED					
Forward Current	¹	-	-	4.0	mA
Forward Current	$I_f = 16\text{mA}$	-	-	2.5	V
Reverse Current	$V_R = 4\text{V}$	-	-	3.0	μA
CELL					
Maximum Cell Voltage	Peak AC or DC	-	-	60	V
Power Dissipation	¹	-	-	50	mW
COUPLED					
On- Resistance	$I_f = 16\text{mA}^2$	-	-	40	Ω
Off Resistance	10 sec after $I_f = 0\text{mA}$, 5 V dc on cell	500	-	-	K Ω
Rise Time	Time for the dark to light change in conductance to reach 63% of its final value	-	55	-	msec
Decay Time	Time to reach 100K Ω after removal of $I_f = 16\text{mA}$	-	80	-	msec
Cell Temp. Coefficient	$I_f = > 5\text{mA}$	-	0.7	-	%/ $^{\circ}\text{C}$

NOTE:

1. Derate linearly to 0 at 75°C
2. The Rise Time, T_R , is the time required for the dark to light change in conductance to reach 63% of its final value.
3. Print "NSL-32" and date code "YYWW"