



**DESCRIPTION**

This optocoupler, **NSL-32SR3**, 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**

This Luna high-reliability detector is in principle able to meet military test requirements (Mil-STD-750, Mil-STD-883) after proper screening and group test. 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 <sup>2</sup>	-	-	+260	°C	-

**NOTE:**

1. 2 mm from case for <5 sec.
2. Derate linearly to 0 at 75°C
3. The Rise Time, TR, is the time required for the dark to light change in conductance to reach 63% of its final value.
4. Measured after 1 minute ON @ IF =20mA followed by 10 sec. OFF.
5. Print “NSL-32SR3” and date code YYWW.

**FEATURES**

- Compact, moisture resistant package
- Very low “on” resistance
- Low LED current
- Passive resistance output

**APPLICATIONS**

- Industrial

**OPTO-ELECTRICAL PARAMETERS**

T<sub>a</sub> = 23°C unless noted otherwise

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
<b>LED</b>					
Forward Current	-	-	-	25	mA
Forward Current	I <sub>F</sub> = 20mA	-	-	2.5	V
Reverse Current	V <sub>R</sub> =4V	-	-	10	μA
<b>CELL</b>					
Maximum Cell Voltage	Peak AC or DC	-	-	60	V
Power Dissipation	<sup>2</sup>	-	-	50	mW
<b>COUPLED</b>					
ON Resistance	I <sub>F</sub> = 20mA	-	-	60	Ω
ON Resistance	I <sub>F</sub> = 50mA	-	150	-	Ω
Off Resistance	10 sec after I <sub>F</sub> = V -0.5Vdc on cell	25	-	-	MΩ
Rise Time	Time to 63% of final conductance I <sub>F</sub> = 5mA	-	5	-	msec
Decay Time	Time to 100KΩ after removal of I <sub>F</sub> =5mA	-	10	-	msec
Cell Temp. Coefficient	I <sub>f</sub> >5mA	-	0.7	-	%/K

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**TYPICAL PERFORMANCE**

**PHOTOCELL RESISTANCE vs. LED CURRENT**

