

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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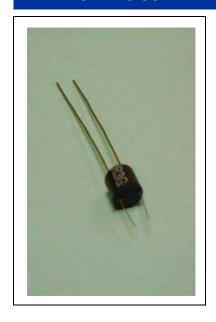


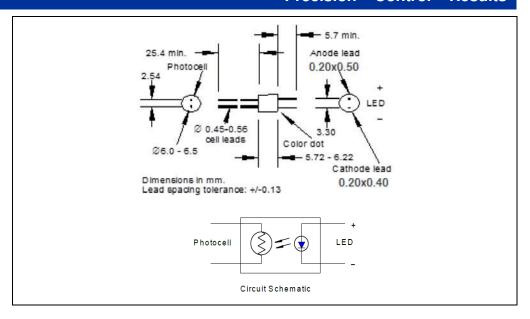




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# **Precision – Control – Results**





#### 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.

#### **FEATURES**

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

#### **APPLICATIONS**

Industrial

#### **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.



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## **OPTO-ELECTRICAL PARAMETERS**

 $T_a = 23$ °C unless noted otherwise

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
LED					
Forward Current	-	-	-	25	mA
Forward Current	I <sub>F</sub> = 20mA	-	-	2.5	V
Reverse Current	V <sub>R</sub> =4V	-	-	10	μΑ
CELL					
Maximum Cell Voltage	Peak AC or DC	-	-	60	V
Power Dissipation	2	-	-	50	mW
COUPLED					
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	-	-	ΜΩ
Rise Time	Time to 63% of final conductance $I_F = 5mA$		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

