

## NSL-32SR3S (Sorted) Optocoupler

## **Features**

- Compact, moisture resistant package
- Low "on" resistance
- Low LED current
- Fast rise and decay time
- Passive resistance output
- Best distortion characteristics
- Ideal for applications requiring matched devices

## **Description**

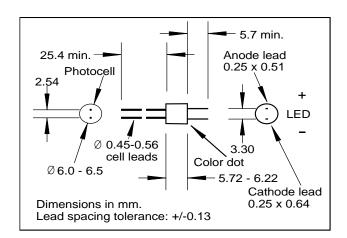
This optocoupler consists of an LED input optically coupled to a photocell. The photocell resistance is high when the LED current is "off" and low when the LED current is "on".

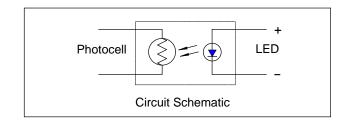
## **Absolute Ratings Maximum**

Storage Temperature -40 to +75°C
Operating Temperature -40 to +75°C
Soldering Temperature (1) 260°C
Isolation Voltage (peak) 2000V

Note:

- (1) >2 mm from case for <5 sec.
- (2) Derate linearly to 0 at 75°C
- (3) Packaged in ranges. Printed with part number, R3 followed by a letter. Individual ranges not available separately. Range distribution not guaranteed.





**Electrical Characteristics** (T<sub>A</sub>=25°C unless otherwise noted)

Symbol	Parameter	Min.	Тур.	Max.	Units	Test Conditions
LED						
I <sub>F</sub>	Forward Current			25	mΑ	
$V_{F}$	Forward Voltage			2.5	V	$I_F = 20 \text{ mA}$
$I_R$	Reverse Current			10	μΑ	$V_R = 4V$
Cell						
$V_{C}$	Maximum Cell Voltage			60	V	(Peak AC or DC)
$P_D$	Power Dissipation			50	mW	(2)
Coupled						
R <sub>ON</sub>	On Resistance		60		Ω	$I_F = 20 \text{ mA}$
Range(3)	R3A	300		331		I <sub>F</sub> = 1 mA (guaranteed +/- 1 range)
	R3B	331		366		
	R3C	366		404		
	R3D	404		446		
	R3E	446		492		
	R3F	492		543		
	R3G	543		600		
R <sub>OFF</sub>	Off Resistance	25			$M\Omega$	10 sec after $I_F = 0$ , 5Vdc on cell.
$T_R$	Rise Time		5		msec	Time to 63% of final conductance @ I <sub>F</sub> = 5mA
$T_F$	Decay Time		10		msec	Time to $100K\Omega$ after removal of $I_F = 5mA$
	Cell Temp Coefficient		0.7		%/°C	$I_F > 5 \text{ mA}$

Specifications subject to change without notice

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