NSL-32SR2S (Sorted) Optocoupler



Features

- Compact, moisture resistant package
- Lowest "on" resistance
- Very low LED current
- Passive resistance output
- Low distortion
- · 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 resistance when the LED current is "on".

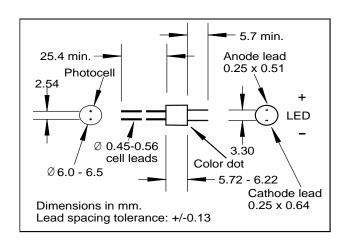
Absolute Maximum Ratings

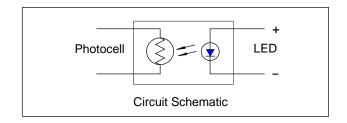
 $\begin{array}{lll} \mbox{Storage Temperature} & -40 \ \mbox{to } +75^{\circ}\mbox{C} \\ \mbox{Operating Temperature} & -40 \ \mbox{to } +75^{\circ}\mbox{C} \\ \mbox{Soldering Temperature (1)} & 260^{\circ}\mbox{C} \\ \mbox{Isolation Voltage (peak)} & 2000\mbox{V} \end{array}$

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, R2 followed by a letter. Individual ranges not available separately. Range distribution is not guaranteed.





Electrical Characteristics (T_A=25°C unless otherwise noted)

Symbol	Parameter	Min.	Тур.	Max.	Units	Test Conditions
LED						
I _F	Forward Current			25	mA	
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 _{ON}	On Resistance		40		Ω	$I_F = 20 \text{ mA}$
Range(3)	R2A	100		110		I _F = 1 mA (guaranteed +/- 1 range)
	R2B	110		122		
	R2C	122		135		
	R2D	135		149		
	R2E	149		164		
	R2F	164		181		
	R2G	181		200		
R _{OFF}	Off Resistance	1	5		$M\Omega$	10 sec after I _F = 0, 5Vdc on cell.
T_R	Rise Time		5		msec	Time to 63% of final conductance @ I _F = 20mA
T _F	Decay Time		80		msec	Time to $100K\Omega$ after removal of $I_F = 20mA$
	Cell Temp Coefficient		0.7		%/°C	I _F > 5 mA
0 :6: 4:	phicat to change without notice					104520 PEV 0

Specifications subject to change without notice

104539 REV 0

5200 St. Patrick St., Montreal Que., H4E 4N9, Canada Tel: 514-768-8000 Fax: 514-768-8889 The Old Railway, Princes Street Ulverston, Cumbria, LA12 7NQ, UK Tel: 01 229 581 551 Fax: 01 229 581 554