

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

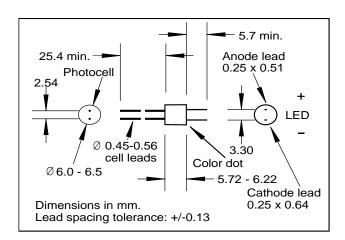
This optocoupler consists of an LED input optically coupled to a photocell. The photocell resistance is high when the LED current is "off" and low when the LED current is "on".

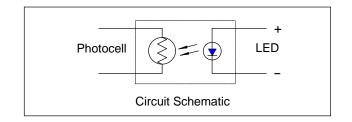
Absolute Ratings Maximum

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_A=25°C unless otherwise noted)

| Symbol | Parameter | Min. | Тур. | Max. | Units | Test Conditions |
|-----------------|-----------------------|------|------|------|-----------|---|
| LED | | | | _ | | |
| I _F | 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 _{ON} | On Resistance | | 60 | | Ω | $I_F = 20 \text{ mA}$ |
| Range(3) | R3A | 300 | | 331 | | I _F = 1 mA (guaranteed +/- 1 range) |
| | R3B | 331 | | 366 | | |
| | R3C | 366 | | 404 | | |
| | R3D | 404 | | 446 | | |
| | R3E | 446 | | 492 | | |
| | R3F | 492 | | 543 | | |
| | R3G | 543 | | 600 | | |
| R_{OFF} | 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 _F = 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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5200 St. Patrick St., Montreal Que., H4E 4N9, Canada Tel: 514-768-8000

Fax: 514-768-8889

QF-84

The Old Railway, Princes Street Ulverston, Cumbria, LA12 7NQ, UK Tel: 01 229 581 551 Fax: 01 229 581 554