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### Features

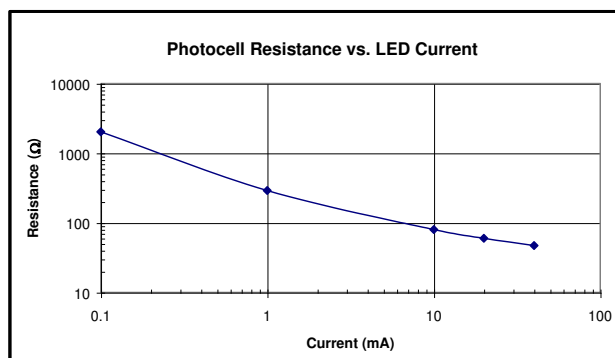
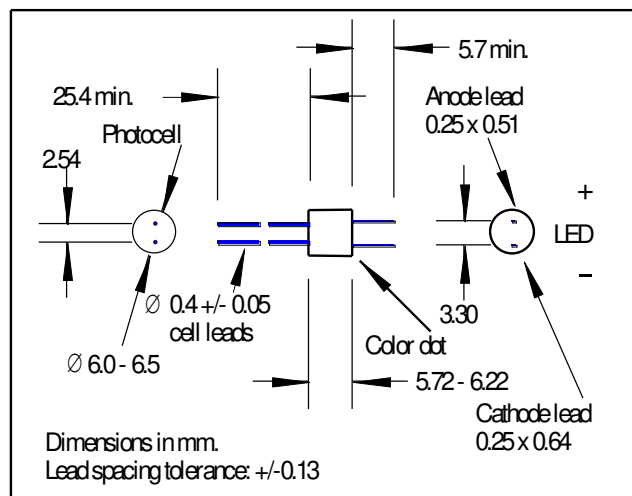
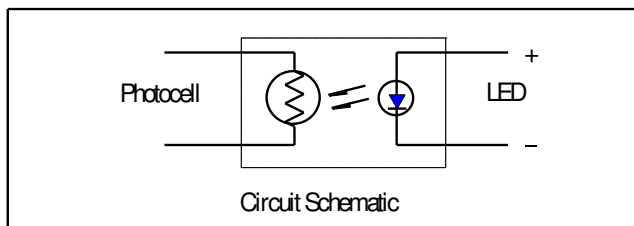
- Compact, moisture resistant package
- Low "on" resistance
- Low LED current
- Fast rise and decay time
- Passive resistance output
- Best distortion characteristics

### Description

This opto-coupler 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 Maximum Ratings

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



### Electrical Characteristics (T<sub>A</sub>=25°C)

| Symbol               | Parameter             | Min. | Typ. | Max. | Units | Test Conditions                                         |
|----------------------|-----------------------|------|------|------|-------|---------------------------------------------------------|
| <b>LED</b>           |                       |      |      |      |       |                                                         |
| I <sub>F</sub>       | Forward Current       |      |      | 25   | mA    |                                                         |
| V <sub>F</sub>       | Forward Voltage       |      |      | 2.5  | V     | I <sub>F</sub> = 20 mA                                  |
| I <sub>R</sub>       | Reverse Current       |      |      | 10   | μA    | V <sub>R</sub> = 4V                                     |
| <b>Cell</b>          |                       |      |      |      |       |                                                         |
| V <sub>C</sub>       | Maximum Cell Voltage  |      |      | 60   | V     | (Peak AC or DC)                                         |
| P <sub>D</sub>       | Power Dissipation     |      |      | 50   | mW    | (2)                                                     |
| <b>Coupled</b>       |                       |      |      |      |       |                                                         |
| R <sub>ON</sub>      | On Resistance         |      |      | 60   | Ω     | I <sub>F</sub> = 20 mA                                  |
|                      |                       |      | 150  |      | Ω     | I <sub>F</sub> = 5 mA                                   |
| R <sub>OFF</sub> (3) | Off Resistance        | 25   |      |      | MΩ    | 10 sec., after I <sub>F</sub> = 0, 5Vdc on cell.        |
| T <sub>R</sub>       | Rise Time             |      | 5    |      | msec  | Time to 63% of final conductance @ I <sub>F</sub> = 5mA |
| T <sub>F</sub>       | Decay Time            |      | 10   |      | msec  | Time to 100KΩ after removal of I <sub>F</sub> = 5mA     |
|                      | Cell Temp Coefficient |      | 0.7  |      | %/°C  | I <sub>F</sub> > 5 mA                                   |

Note: (1) >2 mm from case for <5 sec. (2) Derate linearly to 0 at 75°C. (3) Measured after 1 minute ON @ I<sub>F</sub> = 20mA followed by 10 sec. OFF. (4) Print "NSL-32SR3" and date code "YYWW" on module.