



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".

FEATURES

- Compact, moisture resistant package
- Low LED current
- Passive resistance output

RELIABILITY

CdS/CdSe photo resistors are temperature sensitive, it should be noted that operation of the photocell above +75°C does not usually lead to catastrophic failure but the photoconductive surface may be damaged leading to irreversible changes in sensitivity

Contact API for recommendations on specific test conditions and procedures.

APPLICATIONS

- Industrial sensing

ABSOLUTE MAXIMUM RATINGS

Isolation Voltage			2000	V	$T_a = 23^\circ\text{C}$
Operating Temperature	-40	to	+75	$^\circ\text{C}$	non condensing
Storage Temperature	-40	to	+75	$^\circ\text{C}$	
Soldering Temperature			+260	$^\circ\text{C}$	>0.05" from case for < 5 sec.

- (1) Derate linearly to 0 at 75°C
- (2) Measured after 1 minute ON @ $I_F = 20\text{mA}$ and followed by 10 sec. OFF.
- (3) Print "NSL-32SR2" and date code "YYWW"

OPTO-ELECTRICAL PARAMETERS

T_a = 23°C unless noted otherwise

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
LED					
Forward Current				25	mA
Forward Voltage	I _F = 20mA			2.5	V
Reverse Current	V _R = 4V			10	μA
Cell					
Maximum Cell Voltage	(Peak AC or DC)			60	V
Power Dissipation	(1)			50	mW
Coupled					
On Resistance	I _F = 20mA			40	Ω
	I _F = 1mA		140		Ω
Off Resistance (2)	10 sec after I _F = 0 mA, 5 V dc on cell	1	5		MΩ
Rise Time	Time for the dark to light change in conductance to reach 63% of its final value		5		msec.
Decay Time	Time to reach 100 KΩ after removal of I _F = 16 mA		5		msec.
Cell Temp. Coefficient	I _F > 5 mA		0.7		%/°C

