



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".

RELIABILITY

Contact Luna for recommendations on specific test conditions and procedures.

FEATURES

- Compact, moisture resistant package
- Low LED current
- Very low "on" resistance
- Passive resistance output
- Low distortion

APPLICATIONS

- Industrial

ABSOLUTE MAXIMUM RATINGS

SYMBOL	MIN		MAX	UNITS	
Isolation Voltage	-	-	2000	V	T _a = 23°C UNLESS OTHERWISE NOTED
Operating Temperature	-40	to	+75	°C	Non condensing
Soldering Temperature	-40	-	+75	°C	-
Soldering Temperature	-	-	+260	°C	>2 mm from case for < 5 sec.

NOTE:

1. Measure after 1 minute ON @ I_F = 20mA and followed by 10 sec OFF
2. Print "NSL-32SR2" followed by a letter A to G and date code YYWW
3. Package in ranges individual ranges not available separately. Range distribution is not guaranteed

OPTO-ELECTRICAL PARAMETERS

$T_a = 23^\circ\text{C}$ UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
LED					
Forward Current	-	-	-	25	mA
Forward Voltage	$I_f = 20 \text{ mA}$	-	-	2.5	V
Reverse Current	$V_R = 4V$	-	-	10	μA
CELL					
Maximum Cell Voltage	(Peak AC or DC)	-	-	60	V
Power Dissipation	Derate linearly to 0 at 75°C	-	-	50	mW
COUPLED					
On Resistance	$I_f=20 \text{ mA}$	-		40	Ω
R2A	$I_f=1 \text{ mA}$ (guaranteed ± 1 range)	100	-	124	Ω
R2B	-	124		150	Ω
R2C	-	150		177	Ω
R2D	-	177		205	Ω
R2E	-	205		234	Ω
R2F	-	234		266	Ω
R2G	-	266		300	Ω
Off Resistance ¹	10 sec after $I_f = 0 \text{ mA}$	1	5	-	$M\Omega$
Rise Time	Time to reach 63% of final conductive @ $I_f = 16\text{mA}$	-	5	-	m sec
Decay Time	Time to reach $100\text{K}\Omega$ from removal of $I_f = 16\text{mA}$	-	80	-	msec
Cell Temp. Coefficient	$I_f > 5\text{mA}$	-	0.7	-	%/ $^\circ\text{C}$

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TYPICAL PERFORMANCE

Photocell Resistance vs. LED Current

