25.4 min.
Photocell
2.54
5.7 min.
Anode lead
0.25 x 0.51
+
LED
−
∅ 0.45-0.56 cell leads
∅ 6.0 - 6.5
Color dot
3.30
5.72 - 6.22
Cathode lead
0.25 x 0.64

Dimensions in mm.
Lead spacing tolerance: +/-0.13

Photocell   LED
+
−
Circuit Schematic

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
- Very low "on" resistance
- Passive resistance output
- Low distortion

RELIABILITY

Contact Luna for recommendations on specific test conditions and procedures.

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

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Precision – Control – Results

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 = 20 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 mA	-		40	Ω
R2A	I_f=1 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 mA	1	5	-	MΩ
Rise Time	Time to reach 63% of final conductive @ I_f = 16mA	-	5	-	m sec
Decay Time	Time to reach 100KΩ from removal of I_f = 16mA	-	80	-	msec
Cell Temp. Coefficient	I_f > 5mA	-	0.7	-	%/°C

NOTE:

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TYPICAL PERFORMANCE

Photocell Resistance vs. LED Current

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