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Optocoupler NSL-32SR3

Precision – Control – Results





DESCRIPTION

This optocoupler, **NSL-32SR3**, 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
- Very low "on" resistance
- Low LED current
- Passive resistance output

APPLICATIONS

• Industrial

RELIABILITY

This Luna high-reliability detector is in principle able to meet military test requirements (Mil-STD-750, Mil-STD-883) after proper screening and group test.

Contact Luna for recommendations on specific test conditions and procedures.

ABSOLUTE MAXIMUM RATINGS

SYMBOL	MIN		MAX	UNITS	(TA)= 23°C UNLESS OTHERWISE NOTED
Isolation Voltage	-	-	2000	V	-
Operating Temperature	-40	to	+75	°C	-
Storage Temperature	-40	to	+75	°C	-
Soldering Temperature ²	-	-	+260	°C	-

NOTE:

1. 2 mm from case for <5 sec.

2. Derate linearly to 0 at 75°C

3. The Rise Time, TR, is the time required for the dark to light change in conductance to reach 63% of its final value.

4. Measured after 1 minute ON @ IF =20mA followed by 10 sec. OFF.

5. Print "NSL-32SR3" and date code YYWW.

Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice.

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OPTO-ELECTRICAL F	-	T _a = 23°C unless noted otherwise			
PARAMETER	TEST CONDITIONS	MIN	ТҮР	MAX	UNITS
LED			`		
Forward Current	-	-	-	25	mA
Forward Current	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	n ²		-	50	mW
COUPLED					
ON Resistance	$I_F = 20 \text{mA}$	-	-	60	Ω
ON Resistance	$I_F = 50 \text{mA}$	-	150	-	Ω
Off Resistance	10 sec after $I_F = V - 0.5Vdc$ on cell	25	-	-	MΩ
Rise Time	Time to 63% of final conductance $I_F = 5mA$		5	-	msec
Decay Time	Time to 100K Ω after removal of I _f =5mA		10	-	msec
Cell Temp. Coefficient	I _f >5mA	-	0.7	-	%/K

NOTE:

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2. Derate linearly to 0 at $75^{\circ}C$

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TYPICAL PERFORMANCE

PHOTOCELL RESISTANCE vs. LED CURRENT



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