



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	$T_a = 23^\circ\text{C}$ UNLESS OTHERWISE NOTED
Operating Temperature	-40	to	+75	$^\circ\text{C}$	Non condensing
Soldering Temperature	-40	-	+75	$^\circ\text{C}$	-
Soldering Temperature	-	-	+260	$^\circ\text{C}$	>2mm from case for < 5 sec.

NOTE:

1. Measure after 1 minute ON @ $I_F = 20\text{mA}$ and followed by 10 sec OFF
2. Print “NSL-32SR2” and date code YYWW

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 Current	$I_f = 20\text{ mA}$	-	-	2.5	V
Reverse Current	$V_R = 4\text{ V}$	-		10	μA
CELL					
Maximum Cell Voltage	Peak AC or DC	-	-	60	V
Power Dissipation	²	-	-	50	mW
COUPLED					
On Resistance	$I_f = 20\text{ mA}$	-	-	40	Ω
	$I_f = 5\text{ mA}$	-	140	-	Ω
Off Resistance	10 sec after $I_f = V - 0.5\text{ Vdc}$ on cell	25	5	-	M Ω
Rise Time	Time to reach 63% of final conductive @ $I_f = 5\text{ mA}$	-	5	-	m sec
Decay Time	Time to reach 100K Ω from removal of $I_f = 5\text{ mA}$	-	80	-	m sec
Cell Temp Coefficient	$I_f > 5\text{ mA}$	-	0.7	-	%/K

NOTE:

1. Derate linearly to 0 at 75°C

2. $> 2\text{ mm}$ from case for $< 5\text{ sec}$.

3. "FULLTONE OPTO-1" and date code YYWW

4. Approved LED APC16792 to be used only

TYPICAL PERFORMANCE

PHOTOCELL RESISTANCE vs. LED CURRENT

