



DESCRIPTION

This Silicon solderable planar photodiodes feature low cost, high reliability and linear short circuit current over a wide range of illumination. These devices are widely used for light sensing and power generation because of their stability and high efficiency. They are particularly suited to power conversion applications due to their low internal impedance, relatively high shunt impedance, and stability. These devices also provide a reliable and inexpensive detector for instrumentation and light beam sensing applications

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	
Operating Temperature	-40	to	+125	°C	-
Storage Temperature	-40	to	+125	°C	-
Soldering Temperature	-	-	+260	°C	-

FEATURES

- Visible to IR spectral irradiance range
- High reliability
- Oxide passivation
- Linear short circuit current
- Low capacitance, high speed

APPLICATIONS

- Industrial

NOTE: Ee = light source@2854°K

OPTO-ELECTRICAL PARAMETERS

T_a = 23°C UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Short Circuit Current	V _R = 0V, E _e = 25 mW/cm ²	2.5	4.0	-	mA
Open Circuit Voltage	E _e = 25mW/cm ²	-	0.40	-	V
Reverse Dark Current	V _R = 5V, E _e = 0	-	-	3.3	μA
Reverse Breakdown Voltage	I _R = 100μA	20	-	-	V
Maximum Sensitivity Wavelength	-	-	930	-	nm
Spectral Sensitivity	λ = 940 nm	-	0.55	-	A/W
Sensitivity Spectral Range	-	400	-	1100	nm
Junction Capacitance	V _R = 0V, E _e = 0, f=1MHz	-	2.0	-	nF
Acceptance Half Angle	(off center-line)	-	60	-	deg