



DESCRIPTION

The SLD-68-026 Silicon planar photodiode with added BG-18 filter is designed for visible light detection, TO-46 package with epoxy dome lens allow wide angle of detection. The photodiode is suitable for photopic sensing applications such as: color sensing, analytics, safety equipment and special sensors for automation. Low dark current and low capacitance make it the ideal detector for visible light detection applications.

FEATURES

- Planar photodiode with BG-18 filter
- Low capacitance
- Fast switching time
- Low leakage current
- Linear response vs irradiance
- TO-46 base with epoxy dome lens

RELIABILITY

This API 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 API for recommendations on specific test conditions and procedures.

APPLICATIONS

- Industrial sensing

ABSOLUTE MAXIMUM RATINGS

Operating Temperature	-20	to	+75	°C	non condensing
Storage Temperature	-20	to	+75	°C	
Soldering Temperature			+260	°C	>0.08" from case for <5 sec.

- (1) Ee = Light source @ 2854 °K.
- (2) Ee = light source @ λ = 560 nm

OPTO-ELECTRICAL PARAMETERS

T_a = 23°C unless noted otherwise

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Short Circuit Current	V _R =0V, Ee=25mW/cm ² (1)	7.5	11.0		μA
Open Circuit Voltage	Ee=25mw/cm ² (1)				V
Reverse Dark Current	V _R = 5V, Ee=0			100	nA
Maximum sensitivity wavelength	V _R = 0V		550		nm
Sensitivity spectral range	V _R = 0V	400		700	nm
Temp. Coef., I _{SC}	(1)		+0.2		%/°C
Junction capacitance	V _R =0, Ee=0, f=1MHz		40		pF
Rise Time	V _R = 10V, R _L = 1KΩ (2)		1.0		μs
Fall Time	V _R = 10V, R _L = 1KΩ (2)		1.5		μs
Reverse Breakdown Voltage	I _R =100μA		50		V
Acceptance Half Angle	(off center-line)		40		deg