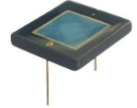




PDCE-411A6-SI 6mm Silicon PIN Photodiode with Ceramic Package



Description

The Lasermate PDCE-411A6-SI is a high reliability, low dark current, 6mm diameter active area Silicon PIN photodiode with high sensitivity from 400nm to 1100nm spectral range. The detector is housed in non-hermetic ceramic package.

Features

- High reliability
- Low dark current
- Spectral range 400nm to 1100nm
- Ultra large active diameter 6x6mm
- Non-hermetic ceramic package with epoxy resin

Applications

- Optical sensor
- Optical measurement equipment
- Spectrophotometry/CT scan
- Industrial automatic control
- IR/laser light monitoring
- Fluorescence detector
- Medical equipment

Product Overview

The following table lists the available part numbers, as well as the package type of each of the part numbers.

Part Number	Package
PDCE-411A6-SI	Non-hermetic ceramic package with epoxy resin

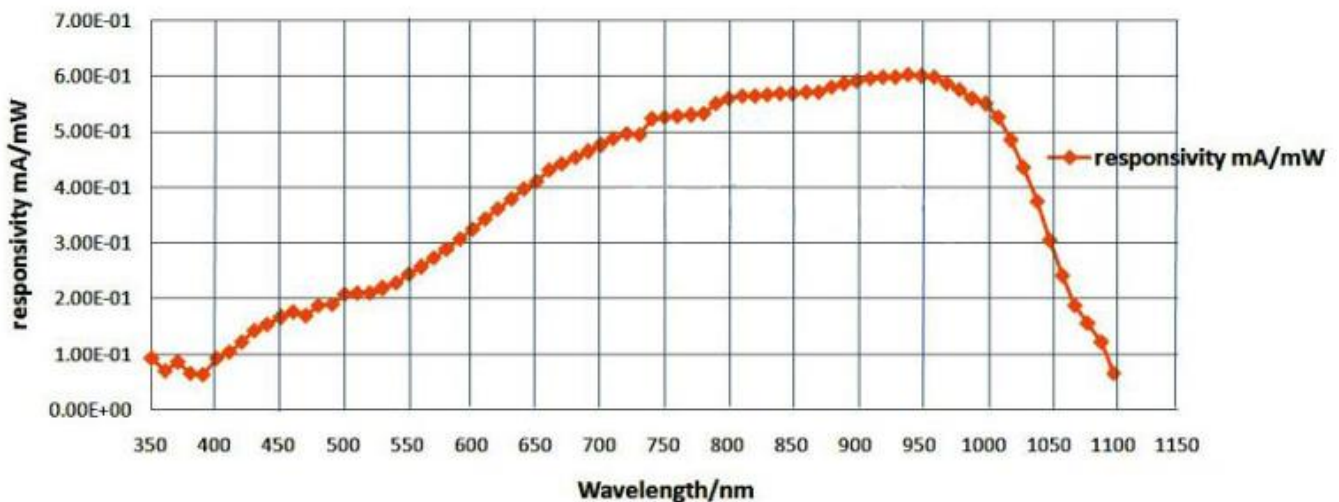


Specifications

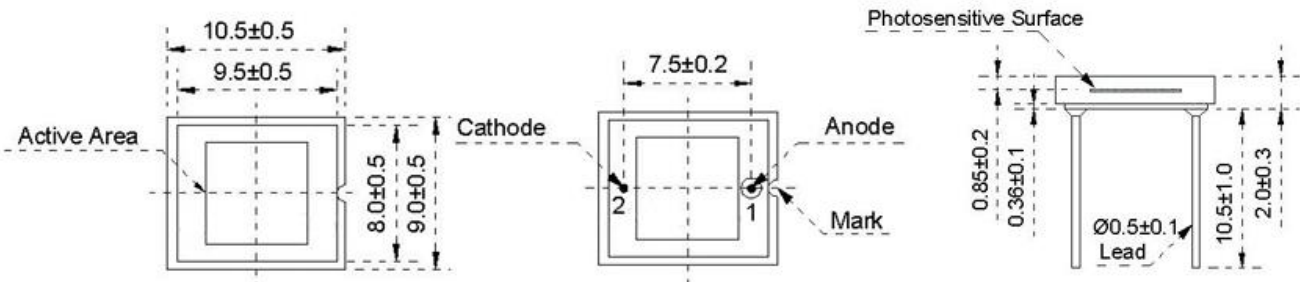
Absolute Maximum Ratings				
Parameters	Symbol	Value	Unit	Conditions
Operating temperature	T_{op}	-20 to 60	°C	
Storage temperature	T_{stg}	-25 to 85	°C	
Forward current	I_F	18	mA	
Reverse voltage	V_r	20	V	
Soldering temperature	T_{sol}	260	°C	10 seconds

Electro-Optical Characteristics (T=25°C)							
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions	
Response spectrum	λ	400		1100	nm		
Active diameter	\varnothing		6x6		mm		
Responsivity	R_e		0.10		mA/mW	$V_r=5V, \lambda=405nm$	
			0.38			$V_r=5V, \lambda=650nm$	
			0.55			$V_r=5V, \lambda=850nm$	
			0.20			$V_r=5V, \lambda=1064nm$	
Dark current	I_d		0.12		nA	$V_r=0V$	
			1.5			$V_r=5V$	
Junction capacitance	C_j		500		pF	$V_r=0V, f=1MHz$	
			80			$V_r=5V, f=1MHz$	
Reverse breakdown voltage	V_{BR}		60		V	$I_R=10\mu A$	
Saturated optical power	P_s		30		mW	$V_r=5V$	
Operating voltage	V_R		0-10		V		
Shunt resistance	R_{sh}		50		MΩ	$V_r=10mV$	
Package	Non-hermetic ceramic package with epoxy resin						

Typical Characteristics



Outline Dimensions (unit: mm) and Pin Configuration



Notes:

1. The suitable ESD protecting measures are recommended in storage, transportation, and usage.
2. Specifications are subject to change without notice.