



PDT-F05UV3200-SIx

3.2mm UV Silicon PIN Photodiode in TO-5 Package

Description

The Lasermate PDT-F05UV3200-SIx is a high reliability, low dark current, 3.2mm dia. active area UV Silicon PIN photodiode with high sensitivity from 200nm to 1100nm. The detector is housed in hermetic TO-5 package with UV window.



Features

- High reliability, low dark current
- Dia. 3.2x3.2mm Active Area
- Spectral range 200nm to 1100nm
- Hermetic TO-5 can package with UV flat window

Applications

- Optical sensor
- Optical power meter
- Industrial automatic control
- Scientific analysis and experiment
- Space light detect equipment
- Response spectrum testing

Product Overview

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

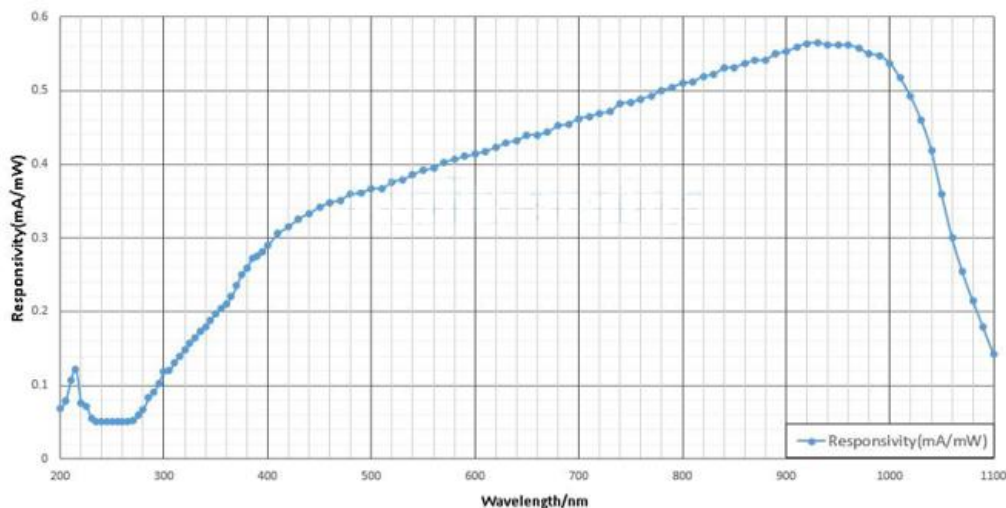
Part Number	Package
PDT-F05UV3200-SI2	TO-5 Can with UV flat window Dia. 8.1mm nickel cap, 2-pin
PDT-F05UV3200-SI3	TO-5 Can with UV flat window Dia. 8.1mm nickel cap, 3-pin

Specifications

Absolute Maximum Ratings				
Parameters	Symbol	Value	Unit	Conditions
Operating temperature	T_{op}	-45 to 85	°C	
Storage temperature	T_{stg}	-45 to 100	°C	
Forward current	I_F	16	mA	
Reverse voltage	V_r	20	V	
Soldering temperature	T_{sol}	260	°C	10 seconds

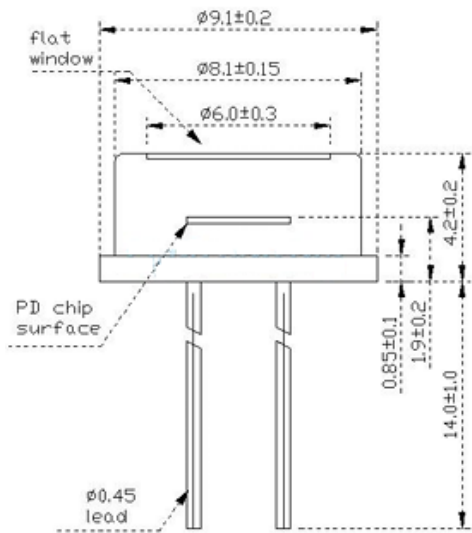
Electro-Optical Characteristics (T=25°C)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Response spectrum	λ	200		1100	nm	
Active diameter	\varnothing		3.2x3.2		mm	
Responsivity	R_e		0.08		mA/mW	$V_r=0V, \lambda=200nm$
			0.28			$V_r=0V, \lambda=405nm$
			0.43			$V_r=0V, \lambda=650nm$
			0.55			$V_r=0V, \lambda=905nm$
			0.22			$V_r=0V, \lambda=1064nm$
Dark current	I_d		1		pA	$V_r=0V$
			200			$V_r=5V$
Response time	T_r		50		ns	$R_L=50\Omega, V_r=5V$
Junction capacitance	C_j		1500		pF	$V_r=0V, f=1MHz$
			300			$V_r=5V, f=1MHz$
Reverse breakdown voltage	V_{BR}		40		V	$I_R=10\mu A$
Saturated optical power	P_s		25		mW	$V_r=5V$
Operating voltage	V_R		0-15		V	
Shunt resistance	R_{sh}		10		G Ω	$V_r=10mV$
Package	Hermetic TO-5 can with UV window					

Typical Characteristics

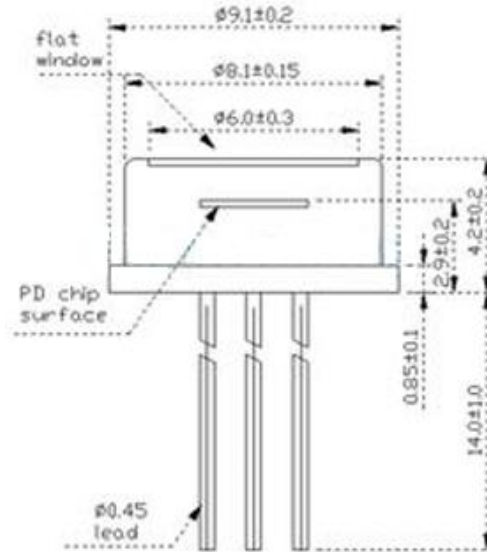


Outline Dimensions (unit: mm)

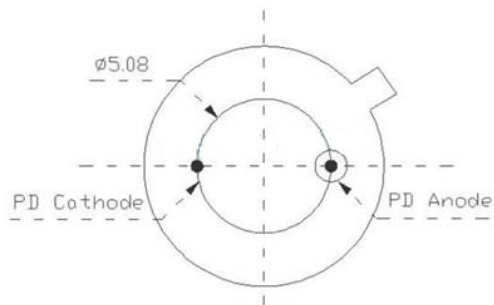
PDT-F05UV3200-SI2:



PDT-F05UV3200-SI3:

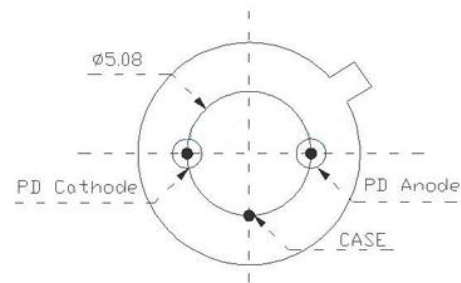


Pin Configuration (2-pin)



2PIN Bottom View

Pin Configuration (3-pin)



3PIN Bottom View

Notes:

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