



PDT-x46UV1200-Six

1.2mm UV Silicon PIN Photodiode in TO-46 Package

Description

The Lasermate PDT-x46UV1200-Six is a high reliability, low dark current, 1.2mm dia. active area UV Silicon PIN photodiode with high sensitivity from 200nm to 1100nm. The detector is housed in hermetic TO-46 package with UV window.



Features

- High reliability, low dark current
- Dia. 1.2x1.2mm Active Area
- Spectral range 200nm to 1100nm
- Hermetic TO-46 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-SF46UV1200-SI2	TO-46 Can with 2mm UV flat window, 2-pin
PDT-SF46UV1200-SI3	TO-46 Can with 2mm UV flat window, 3-pin
PDT-LF46UV1200-SI2	TO-46 Can with 3mm UV flat window, 2-pin
PDT-LF46UV1200-SI3	TO-46 Can with 3mm UV flat window, 3-pin

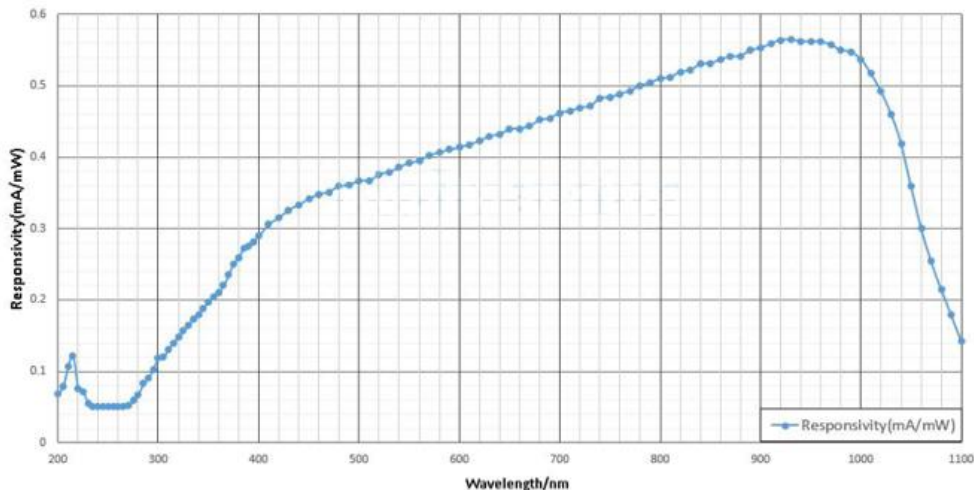


Specifications

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	10	mA	
Reverse voltage	V_r	20	V	
Soldering temperature	T_{sol}	260	°C	10 seconds

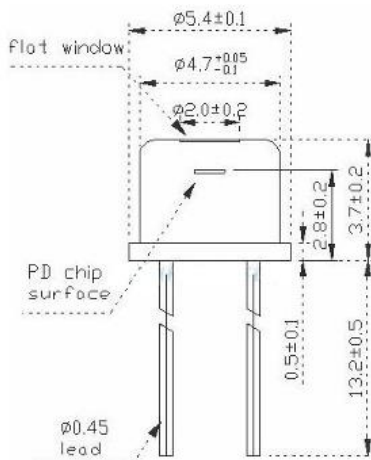
Electro-Optical Characteristics (T=25°C)							
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions	
Response spectrum	λ	200		1100	nm		
Active diameter	\varnothing		1.2x1.2		mm		
Responsivity	R_e		0.08		mA/mW	$V_r=0V, \lambda=200nm$	
			0.28			$V_r=0V, \lambda=405nm$	
			0.43			$V_r=0V, \lambda=650nm$	
			0.55			$V_r=0V, \lambda=905nm$	
			0.22			$V_r=0V, \lambda=1064nm$	
Dark current	I_d		0.2		pA	$V_r=0V$	
			100			$V_r=5V$	
Response time	T_r		8		ns	$R_L=50\Omega, V_r=5V$	
Junction capacitance	C_j		190		pF	$V_r=0V, f=1MHz$	
			40			$V_r=5V, f=1MHz$	
Reverse breakdown voltage	V_{BR}		100		V	$I_R=10\mu A$	
Saturated optical power	P_s		15		mW	$V_r=5V$	
Operating voltage	V_R		0-15		V		
Shunt resistance	R_{sh}		50		G Ω	$V_r=10mV$	
Package	Hermetic TO-46 can with UV window						

Typical Characteristics

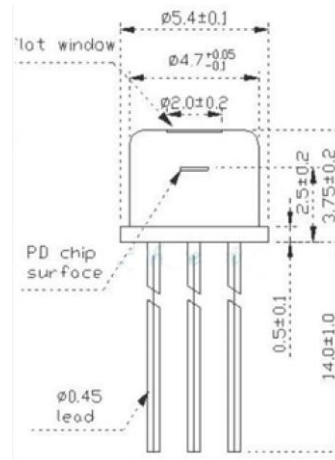


Outline Dimensions (unit: mm)

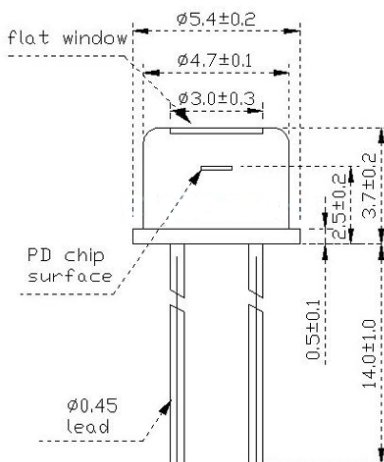
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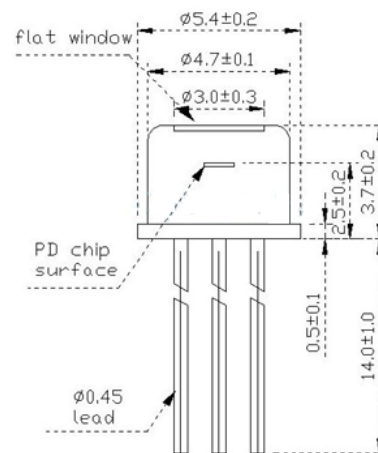
PDT-SF46UV1200-SI3:



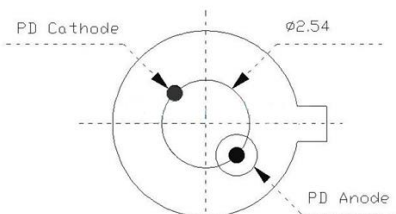
PDT-LF46UV1200-SI2:



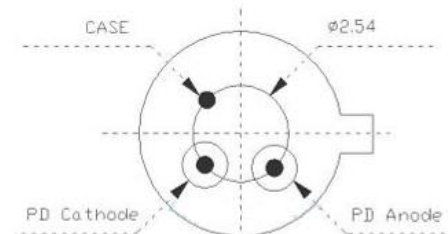
PDT-LF46UV1200-SI3:



Pin Configuration (2-pin)



Pin Configuration (3-pin)



Notes:

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