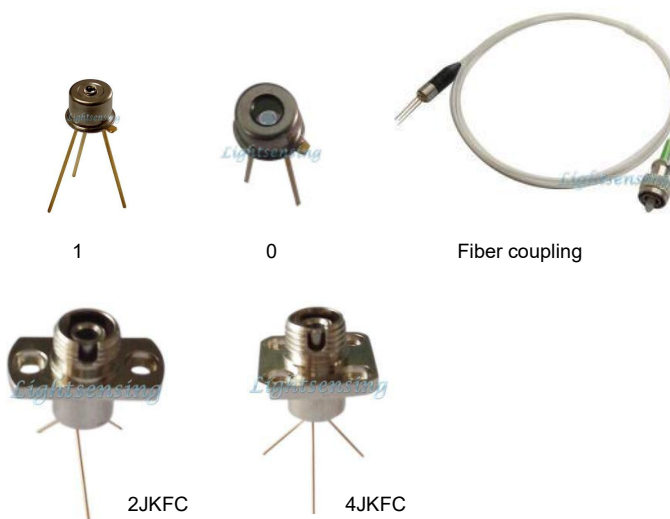


## 2.5GHZ Fast Silicon PIN photodiode

Model: LSSFDP-2.5G

### Features:

- High responsivity
- High speed up to 2.5 GHZ
- 400-1100nm spectral range
- Low capacitance
- Hermetic TO46 Can or with receptacle or with fiber coupling



### Applications:

- Optical communications
- Laser range finding and laser lidar
- Industrial automatic control
- laser pulse test
- Science analysis and experiment

### Absolute maximum ratings:

parameter	symbol	value	unit
Operating temperature	Top	-40~+85	℃
Storage temperature	Tstg	-40~+85	℃
Forward current	I <sub>f</sub>	3	mA
Reverse voltage	V <sub>r</sub>	20	V
Soldering temperature(time)	T <sub>s</sub> (10s)	260	℃

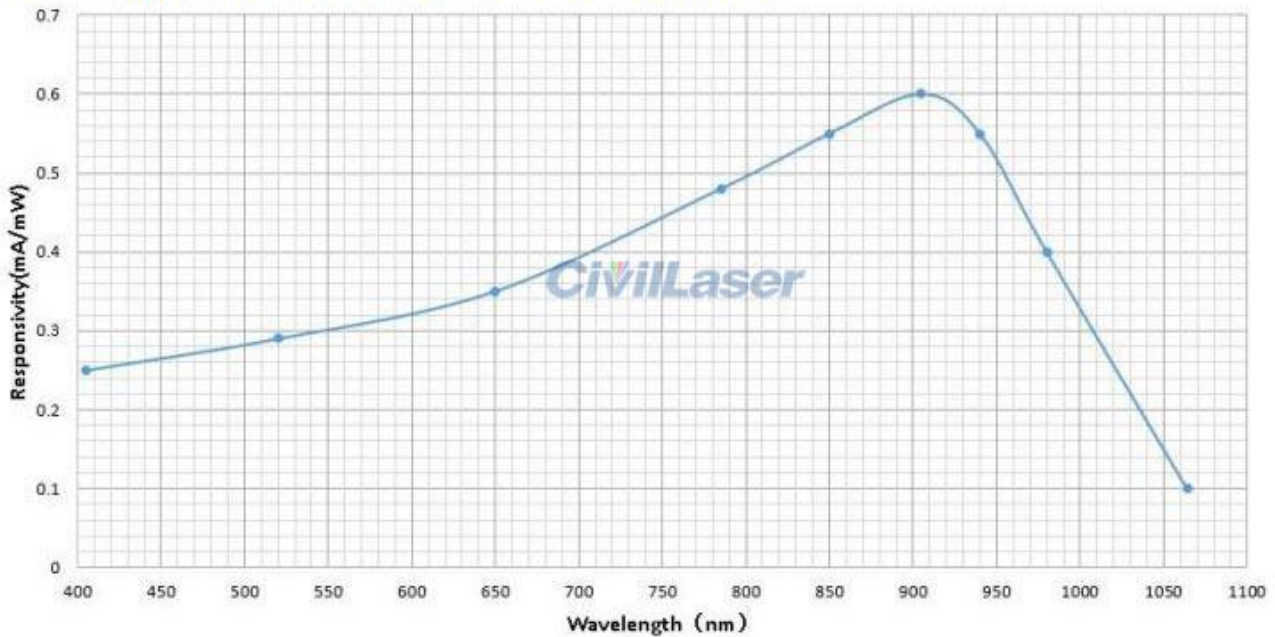
### Electrical and optical characteristics:(T=25℃)

parameter	symbol	unit	Value (typ.)
Active area	Φ	um	200
Spectral range	λ	nm	400-1100
Responsivity	Re(V <sub>R</sub> =10V,λ=405nm)	mA/mW	0.20
	Re(V <sub>R</sub> =10V,λ=650nm)	mA/mW	0.35
	Re(V <sub>R</sub> =10V,λ=850nm)	mA/mW	0.55
	Re(V <sub>R</sub> =10V,λ=1064nm)	mA/mW	0.1
Response time	Tr (R <sub>L</sub> =50Ω, V <sub>R</sub> =10V)	ps	150
Band width(-3dB)	BW (R <sub>L</sub> =50Ω, V <sub>R</sub> =10V)	GHZ	2.5
Dark current	I <sub>d</sub> (V <sub>R</sub> =0V)	pA	0.1
	I <sub>d</sub> (V <sub>R</sub> =10V)	pA	100
Reverse Breakdown voltage	V <sub>BR</sub> (I <sub>R</sub> =10uA)	V	60
Junction capacitance	C <sub>j</sub> (f=1MHz, V <sub>R</sub> =0V)	pF	20
	C <sub>j</sub> (f=1MHz, V <sub>R</sub> =10V)	pF	1.0
Saturated Optical Power	P <sub>s</sub> (V <sub>R</sub> =10V)	mW	5

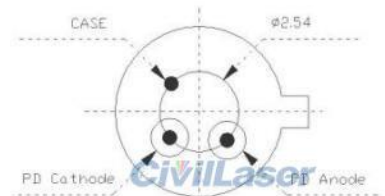
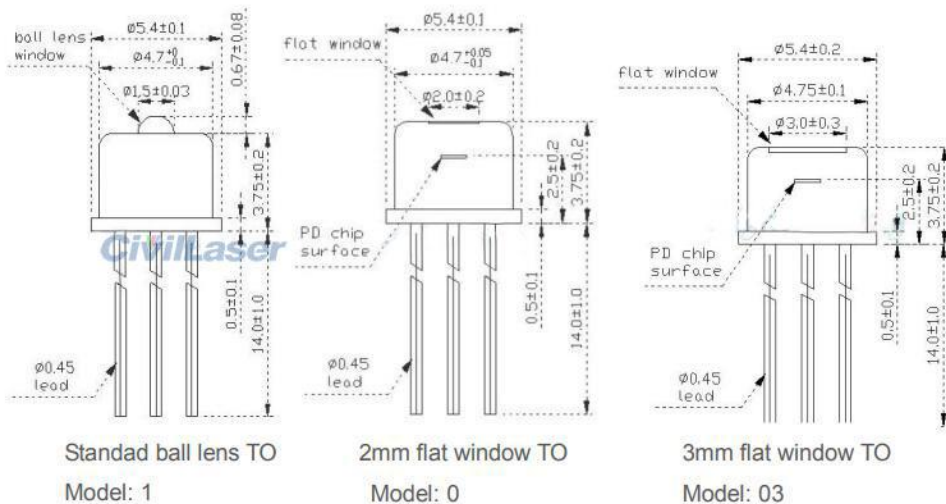
Operating voltage	$V_R$	V	0-15
Shunt resistance	$R_{sh}$ ( $V_R=10mV$ )	$G\Omega$	100
package	Hermetic TO46 Can or with receptacle or with fiber coupling		

NOTICE: The above product specifications are subject to change without notice.

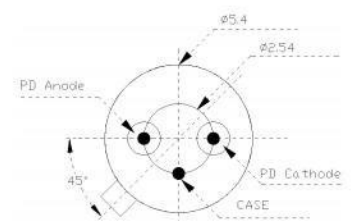
## The typical characteristical curve



## The package and Lead



Type B PIN description  
Bottom View



Type C1 PIN description  
Bottom View

## Order information

LSSFPD-2.5G-X-X		X=0	TO-46 Can with 2mm flat window cap
↙ ↘		X=03	TO-46 Can with 3mm flat window cap
X=B	Type B PIN description	X=1	TO-46 Can with ball lens cap
X=C1	Type C1 PIN description	X=SMFA/P	TO-46 Can with SM Fiber coupling with FC-APC/FC-PC connector
		X=SMSA	TO-46 Can with SM Fiber coupling with SC-APC connector
		X=5MMFA/P	TO-46 Can with 50um MM Fiber coupling with FC-APC/FC-PC connector
		X=6MMFA/P	TO-46 Can with 62.5um MM Fiber coupling with FC-APC/FC-PC connector
		X=10MMFA/P	TO-46 Can with 105um MM Fiber coupling with FC-APC/FC-PC connector
		X=20MMFA/P	TO-46 Can with 200um MM Fiber coupling with FC-APC/FC-PC connector
		X=2JKFC	TO-46 Can with fixed receptacle with FC connector and 2 pieces of fix holes
		X=4JKFC	TO-46 Can with fixed receptacle with FC connector and 4 pieces of fix holes
		X=Other	By customer's request. <b>Example, We can provide photodiode with filter</b>

## The cautions

- 1: The above product specifications are subject to change without notice.
- 2: The suitable ESD protection is required in storage, transportation and using
- 3: The fiber bending radius no less than 20mm for avoiding fiber damaged ,Be sure the fiber coupling facet is clean before connecting it to opto-circuit.