



InGaAs PIN Photodiode

Type: PDS443-C-02

FEATURES:

- Planar semiconductor design and dielectric passivation
- 3-pin coaxial streamline packaging . with lens cap
- Superior noise and photoelectric performance
- Hermetical packaging and 100% purge burn-in
- For parallel beam application

ELECTRO-OPTICAL CHARACTERISTICS(T=25°C):

PARAMETERS	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Wavelength			1000		1650	nm
Dark Current	I_D	$E_e=0, V_R=5V$		0.2	0.5	nA
Responsivity ⁽¹⁾	R_e	$V_R=5V, \lambda=1310nm$	0.85	0.90		A/W
Responsivity ⁽²⁾	R_e	$V_R=5V, \lambda=1550nm$	0.90	0.95		A/W
Capacitance	C	$f=1MHz, case grounded$ $V_R=5V E_e=0$		0.63	0.75	pF
Operating voltage	V_{opr}			-5	-15	V
Frequency Responsibility	BW	$V_R=5V, 50 \Omega$ load with lead length=6mm, case open	2.00			GHz

Note:(1),(2) Responsivity measure by Collimator.

ABSOLUTE MAXIMUM RATINGS(T=25°C):

PARAMETERS	MIN	MAX	UNIT
Reverse Voltage		25	V
Input optical power		10	dBm
Reverse Current		5	mA
Forward Current		10	mA
Operating Temperature	-40	+85	
Storage Temperature	-40	+85	
Lead Solder Temperature		260	
Lead soldering duration		10	s

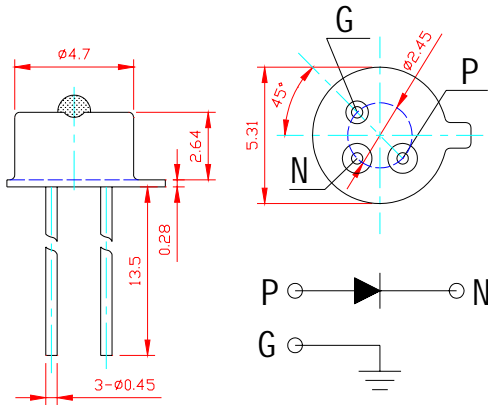
PRECAUTIONS:

- a ESD protection is imperative.
- b Please shorten the length of the devices leads as much as possible.

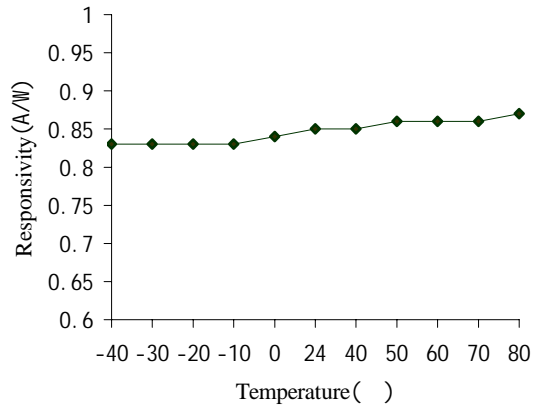


北京世维通光通讯技术有限公司

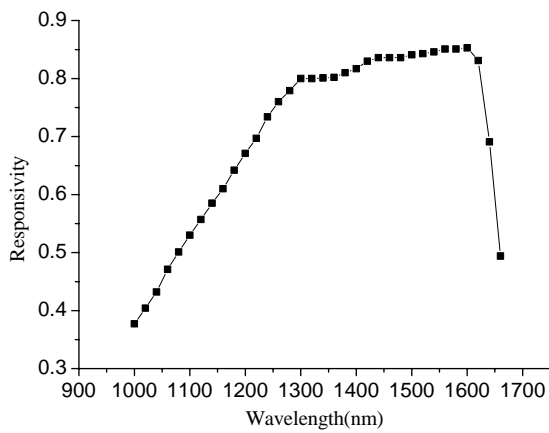
Beijing SWT Optical Communication Technology Co., Ltd.



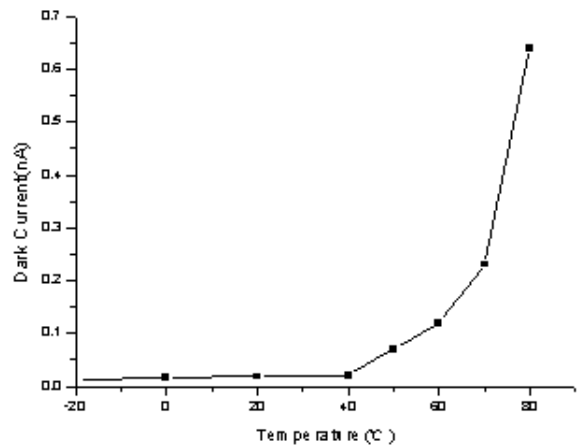
Package Dimensions



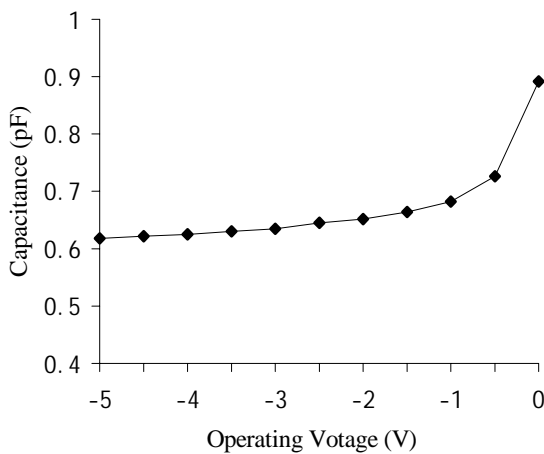
Responsivity-Temperature Curve



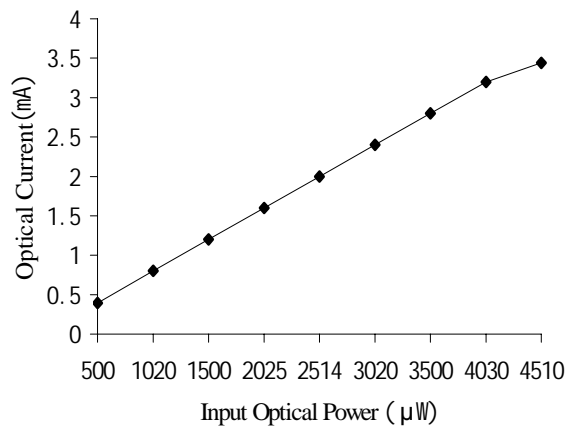
Spectrum Curve



Dark Current-Temperature Curve



Capacitance-Voltage Curve



Current-Optical Power Curve

Address : 10th Floor, Tower C2, Dong ChangAn Street Dongcheng District, Beijing

P.C. : 100738 Tel : 010-85180588 Fax : 010-85185617 <http://www.swt-oc.com>



InGaAs PIN Photodiode

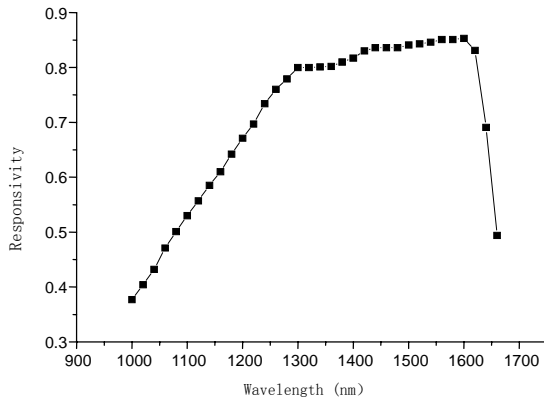
Type: PDS463-a

ELECTRO-OPTICAL CHARACTERISTICS(T=25°C):

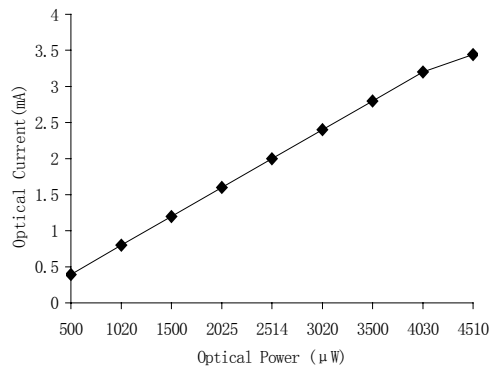
Parameters	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Wavelength	λ		1000		1650	nm
Dark Current	I_D	$E_c=0, -100mV$		2	5	nA
Responsivity	R_e	1310nm	0.85	0.90		A/W
		1550nm	0.90	0.95		
Active diameter	ϕ			1500		μm
Operating Voltage	V_{opr}			-1	-3	V

Absolute maximum ratings:

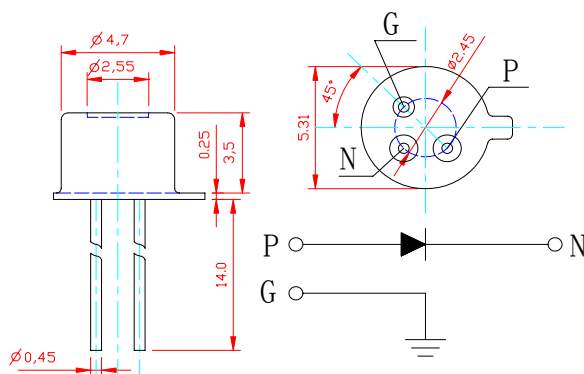
Parameters	Symbol	Value	Unit
Reverse Voltage	V_R	10	V
Forward Current	I_P	10	mA
Operating Temperature Range	T_{opr}	-40—+85	°C
Storage Temperature Range	T_{stg}	-40—+85	°C
Lead Solder Temperature		260	°C



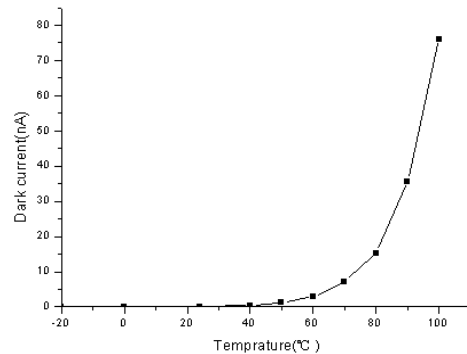
Spectrum Curve



Current-Optical Power Curve



Package Dimensions(mm)



Dark Current-Temperature Curve

Precautions: ESD protection is imperative.

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InGaAs PIN Photodiode

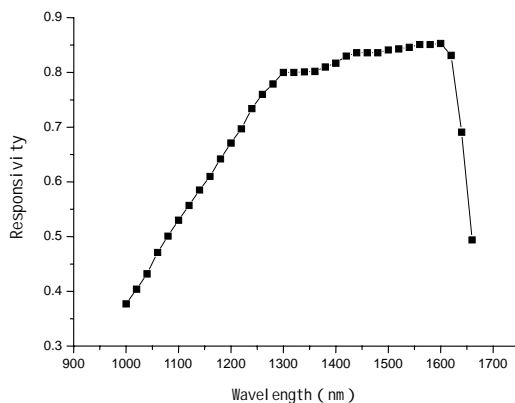
Type: PDS483-a

Electro-optical Characteristics(T=25):

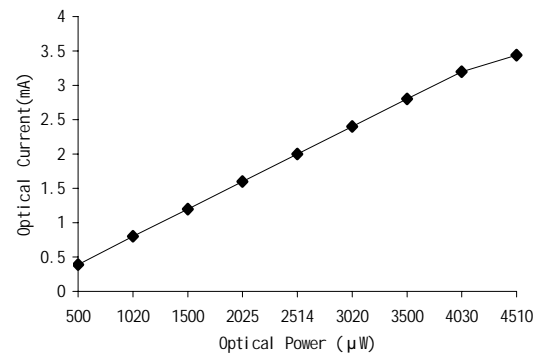
Parameters	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Wavelength			1000		1650	nm
Dark Current	I_D	$E_e=0, -5V$		2	5	nA
Responsivity(Unattenuation)	R_e	1310nm	0.85	0.90		A/W
Active diameter				1000		μm
Operating Voltage	V_{opr}			-1	-5	V

Absolute maximum ratings:

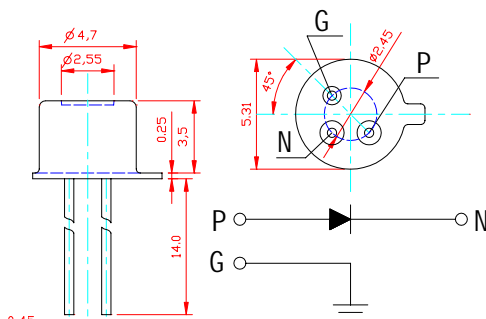
Parameters	Symbol	Value	Unit
Reverse Voltage	V_R	15	V
Reverse Current		5	mA
Forward Current	I_P	10	mA
Operating Temperature Range	T_{opr}	-40—+85	
Storage Temperature Range	T_{stg}	-40—+85	
Lead Solder Temperature		260	



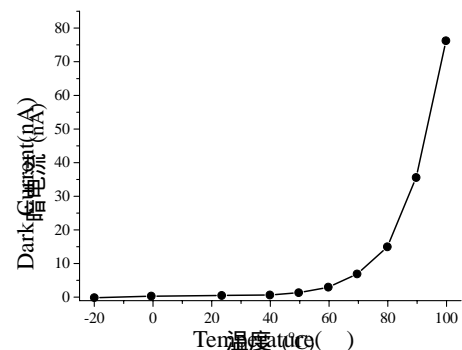
Spectrum Curve



Current-Optical Power Curve



Package Dimensions (mm)



Dark Current-Temperature Curve

Features: The large active area chip of the InGaAs photodiode guarantees the testing coincidence.

Precautions: ESD protection is imperative.



InGaAs PIN Photodiode

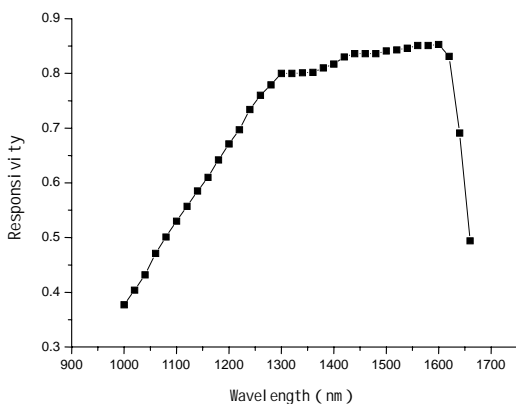
Type: PDS473-a

ELECTRO-OPTICAL CHARACTERISTICS(T=25°C):

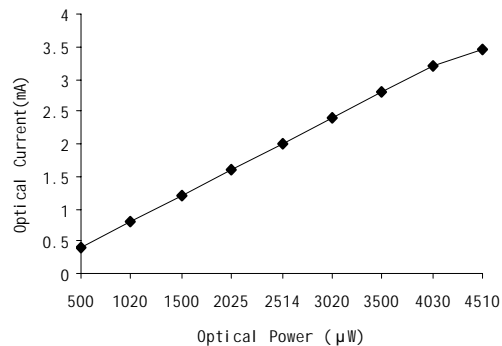
Parameters	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Wavelength			1000		1650	nm
Dark Current	I_D	$E_c=0, -5V$		1.5	3	nA
Responsivity	R_e	1310nm	0.85	0.90		A/W
		1550nm	0.90	0.95		
Active diameter				500		μm
Operating Voltage	V_{opr}			-3	-5	V

Absolute maximum ratings:

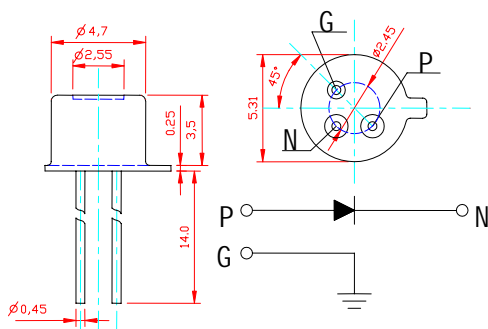
Parameters	Symbol	Value	Unit
Reverse Voltage	V_R	15	V
Reverse Current		5	mA
Forward Current	I_P	10	mA
Operating Temperature Range	T_{opr}	-40—+85	
Storage Temperature Range	T_{stg}	-40—+85	
Lead Solder Temperature		260	



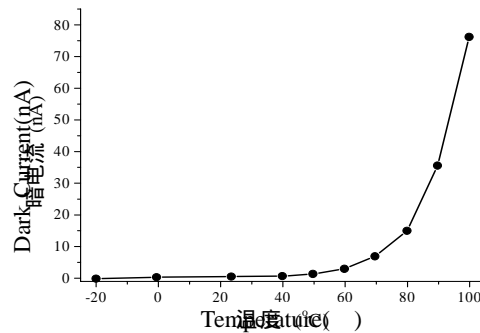
Spectrum Curve



Current-Optical Power Curve



Package Dimensions (mm)



Dark Current-Temperature Curve

Precautions: ESD protection is imperative.