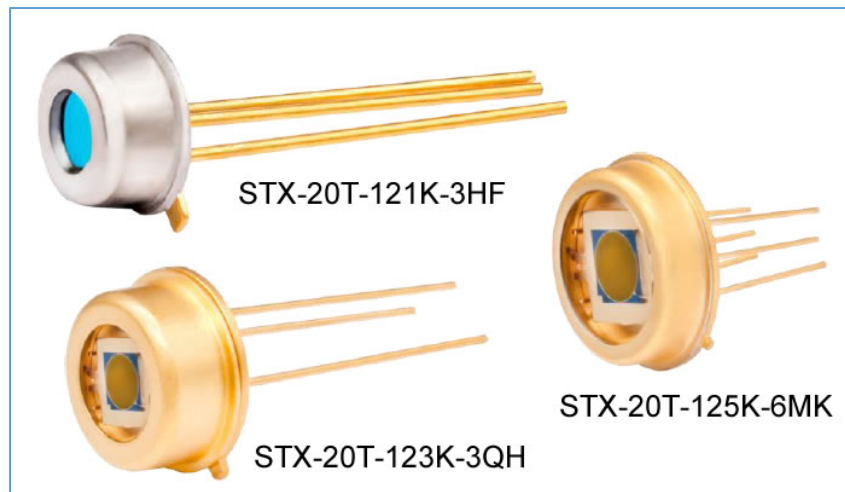


## InGaAs Photodetectors

STX series photodetectors are high quality InGaAs/InP PIN photodiodes designed for optical power monitoring and measurement applications. They are assembled into a hermetically-sealed TO package with flat window. Active areas are 300 $\mu$ m, 1000 $\mu$ m, 3000 $\mu$ m and 5000 $\mu$ m respectively.



### FEATURES

- Long wavelength operation.
- Low dark current.
- High responsivity.
- TO46, TO5, TO8 packages available.
- Excellent Reliability, qualified based on MIL-STD-883 and GR-468-CORE.

### APPLICATIONS

- Optical power monitoring.
- Industrial watching and controlling.
- Measuring instrument.

### SPECIFICATIONS

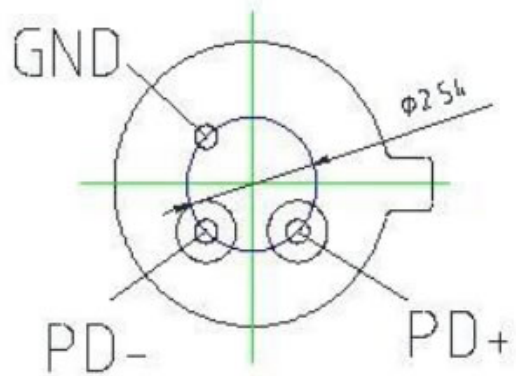
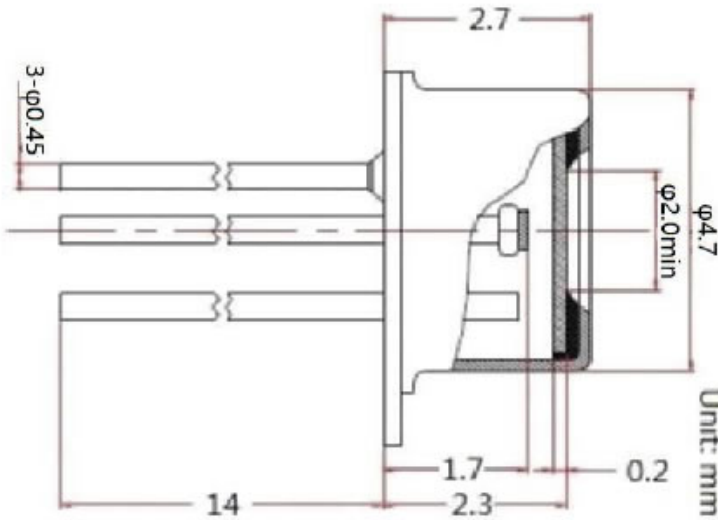
#### Absolute Maximum Rating

	Unit	STX-20T-121K-3HF	STX-20T-123K-3QH	STX-20T-125K-6MK
Active detection diameter	$\mu$ m	1000	3000	5000
Reverse voltage	V	20	20	20
Maximum input optical power	mW	10	10	10
Forward current	mA	10	10	10
Reverse current	mA	2	2	2
Storage temp.	$^{\circ}$ C	-40-100	-40-100	-40-100
Operating tem.	$^{\circ}$ C	-40-85	-40-85	-40-85
Relative humidity	%	5-95	5-95	5-95
Lead soldering	$^{\circ}$ C/s	260/10	260/10	260/10
Power supply voltage	V	5	5	5
Package		TO46	TO5	TO8

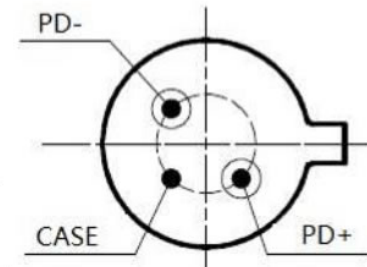
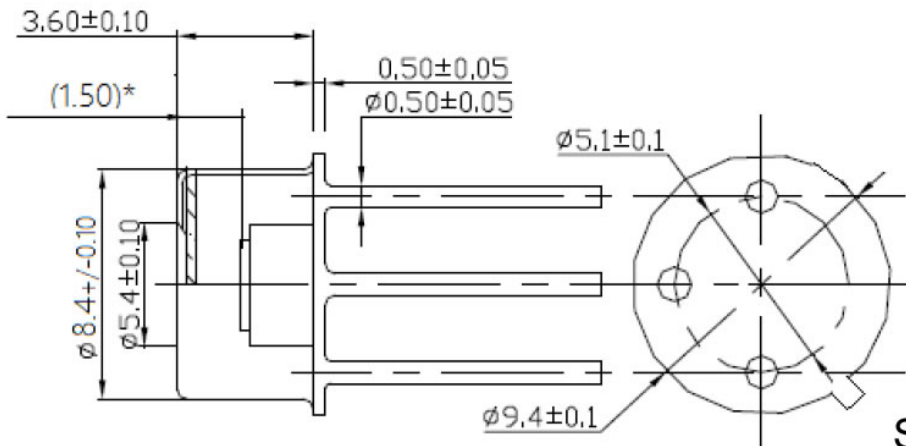
#### E-O and O-E Characteristics (Tc=25 $^{\circ}$ C unless specified)

	Unit	STX-20T-121K-3HF	STX-20T-123K-3QH	STX-20T-125K-6MK
Wavelength range	nm	700-1700	700-1700	700-1700
Responsivity@850nm	A/W	0.23		
Responsivity@1310nm	A/W	0.95	0.95	0.85
Responsivity@1550nm	A/W	1.05	1.0	0.9
Responsivity / temperature@1550nm	%/ $^{\circ}$ C	0.03		

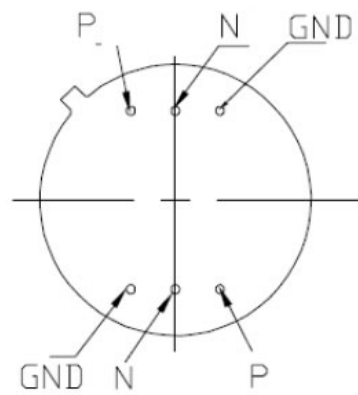
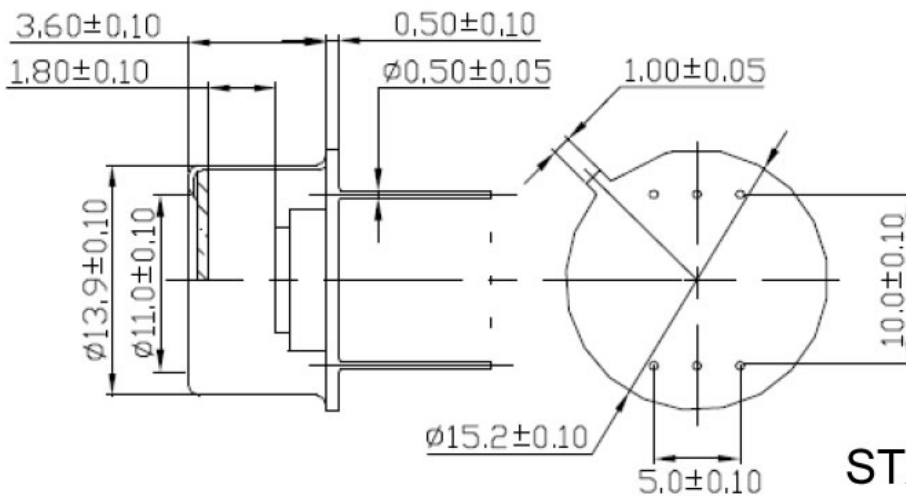
Responsivity / input power	%	-5 - 5		
Responsivity / wavelength	%	-5 - 5		
Dark current@25 °C	nA	1.5-5		
Dark current@85 °C	nA	17-100	7-50	10-50
Bandwidth	MHz	35-50		
Reverse breakdown voltage@10uA	V	20		
Forward voltage@1mA	V	1.2	0.6	0.6
Saturated optical power	dBm		10	10
Capacitance@1MHz	pF	35-50	35-50	1.2-1.5



**STX-20T-121K-3HF**



**STX-20T-123K-3QH**



**STX-20T-125K-6MK**

## Laser Pulse Parameter Measurement (High-speed Photodetector)

Laser pulse duration, usually refers to the interval between the time when the laser power maintains at a certain value. The pulse duration of different lasers can vary greatly.

High-speed photodetector combined with oscilloscope can monitor ultra-fast pulsed laser and measure pulse duration, frequency, period and other parameters of lasers.



Part number	STC-PD
Product name	High-speed photodetector
Wavelength	200-1100nm
Rise time	1ns, 5ns ( optional )
Dimensions	Ultra-thin body [3/4 inch (19.1 mm)] can measure in narrow space
Battery	Internal A23 bias battery (accessory)

