KRT-13221x

Description

KRT-13221x are InGaAs PIN photo diodes with various diameter options of active area.
KRT-13221x are packaged in industry standard TO-46 stem with long ball lens cap.
They are recommended for digital optical communications.

Features

- Front illuminated planar PIN-PD
- Low capacitance and low dark current
- Hermetically sealed TO-46 package with lond ball lens cap.
- High reliability and environmental endurance
- Wide operating wavelength range from 1.1mm to 1.6mm
- Wide operating temperature range from –40°C to 85°C

Applications

- High speed Data Communications
- Gigabit Ethernet
- Fiber Channel
- Optical power monitoring

Absolute Maximum Ratings

Parameter	Symbol	Ratings	Unit
Operating Temperature	T_{opr}	-40 ~ +85	℃
Storage Temperature	$T_{stg.}$	-40 ~ +100	℃
Reverse Voltage	V_{RD}	20	V
Input Optical power	Po	10	mW
Forward Current	I_{FD}	10	mA
Soldering Temperature *1	$T_{sol.}$	260	℃

*1 : Soldering Time ≤ 5 seconds (At a distance of 1 mm from the package).

Electro-Optical Characteristics

Parameter		Symbol	Min.	Typ.	Max.	Unit	Test Condition
Active Area		Ø		75		um	
Detection Range			1100		1600	nm	
Dark Current		I_D		0.10	0.5	nA	@ V_R=5V, 25℃
Responsivity	1.31um	S	0.80			mA/mW	@ V_R=5V, 25℃
	1.55um		0.85				
Bandwidth		BW	2		-	GHz	@V_R=5, RL=50Ω
Capacitance		Cp		0.7	1.2	pF	@ V_R=5V, f=1MHz

* These specifications are subject to change without notice.

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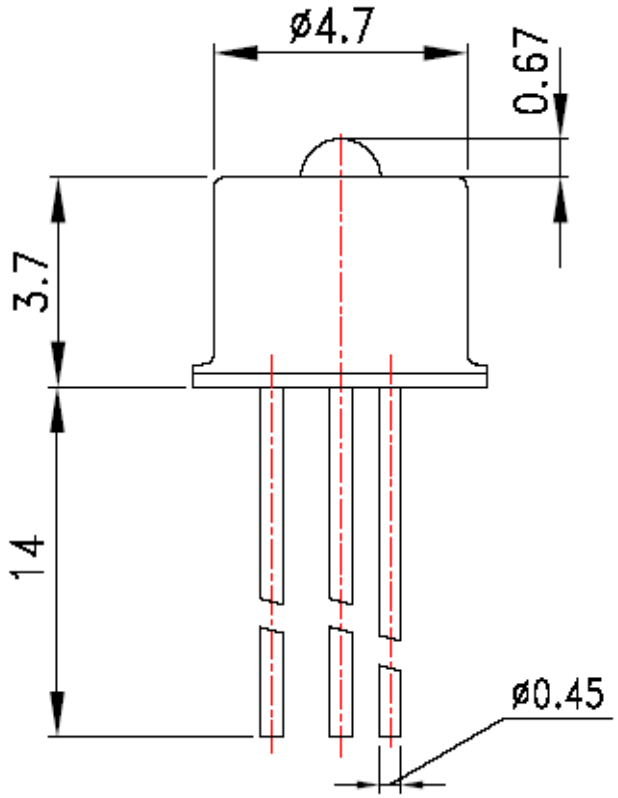
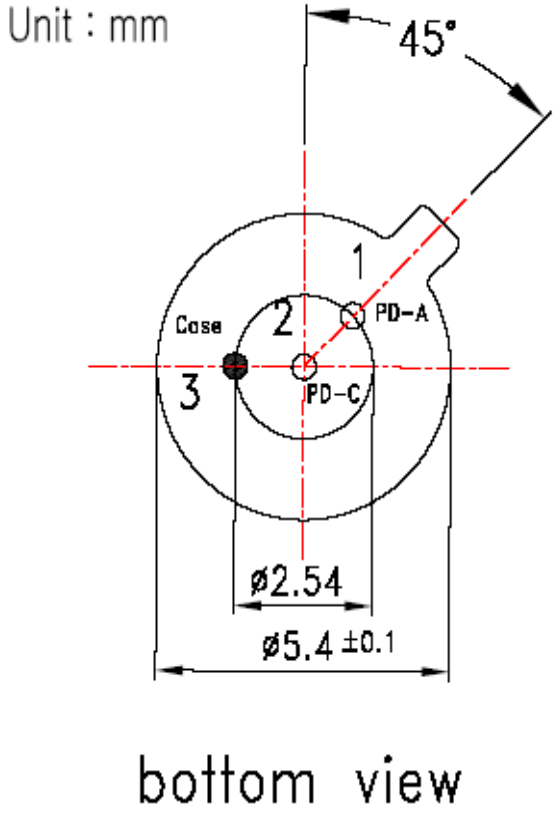
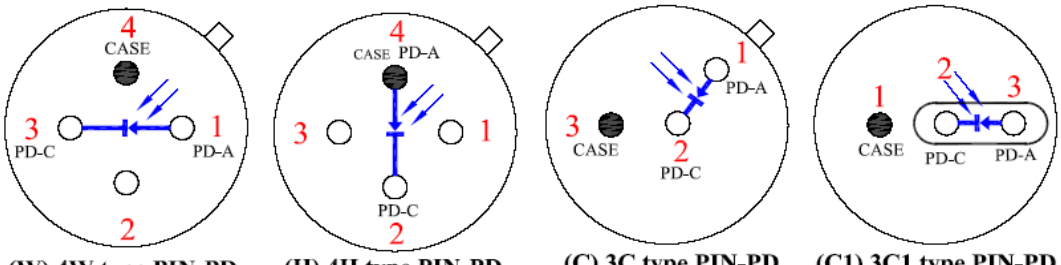
Outline Drawing





Ordering information

KRT	Device Type	Data Rate	Oper. Voltage	Active Area	Cap Type	Pin Config.		
						3(2)	4	5
KODENSHI Receiver TO CAN	1 : PIN-PD	1 : Monitoring	1 : 3.3 V	1 : Ø50 um	1 : long ball lens cap	C	P	A
	2 : PIN-TIA	2 : 155 Mbps	2 : 5 V	2 : Ø75 um	2 : short ball lens cap	C1	D	B
	6 : Analog PIN PD	3 : 1.25 Gbps	3 : 3.3/5 V	3 : 250 um sq.	3 : long flat window cap	W	I	J
		4 : 2.5 Gbps	x : NA	S1 : Ø1.0 mm	4 : short flat window cap	H	T	K
		5 : 5 Gbps		S2 : Ø2.0 mm				M
				S3 : Ø3.0 mm				



Pin configuration of PIN PD TO Package (Bottom view)