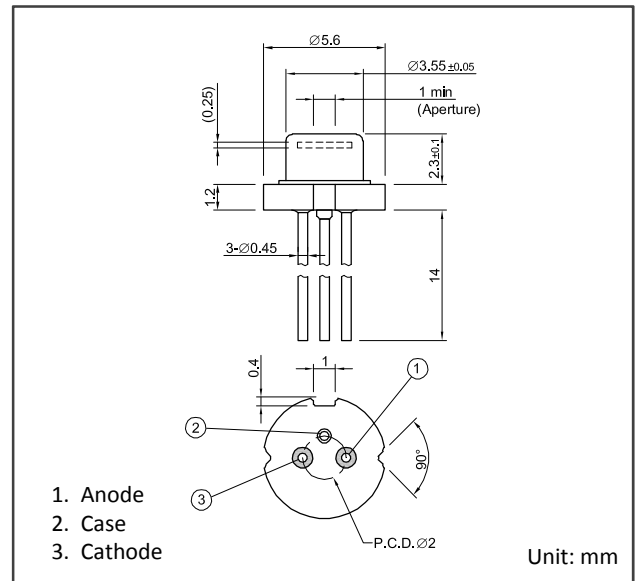


Description

- InGaAs avalanche photodiode
- $\phi 5.6\text{mm}$ CAN package with flat window cap

**Absolute Maximum Ratings**

Parameter	Symbol	Value	Unit	Note
Forward current	I_F	10	mA	
Reverse current	I_R	2	mA	
Operating temperature	T_{opr}	-40 to +85	°C	Avoid dew condensation
Storage temperature	T_{stg}	-40 to +85	°C	Avoid dew condensation

1. KPDEA005-56F**Electrical and Optical Characteristics** ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Active diameter	D	55			μm	
Bandwidth	BW	-	3.0	-	GHz	M=10
Responsivity	R	0.85	0.95	-	A/W	$\lambda=1310\text{nm}$, M=1
		0.95	1.05	-		$\lambda=1550\text{nm}$, M=1
Dark current	I_D	-	10	50	nA	$V_R=V_B \times 0.9$
Breakdown voltage	V_B	35	45	55	V	$I_D=10\mu\text{A}$
Temperature coefficient of V_B	$\Delta V_B/\Delta T$	0.08	0.10	0.12	V/°C	
Chip capacitance	C_{chip}	-	0.38	0.50	pF	f=1MHz
Total capacitance	C_t	-	0.68	0.80	pF	f=1MHz

2. KPDEA007-56F

Electrical and Optical Characteristics (Ta=25°C unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Active diameter	D	75			μm	
Bandwidth	BW	-	2.0	-	GHz	M=10
Responsivity	R	0.80	0.90	-	A/W	λ=1310nm, M=1
		0.90	1.05	-		λ=1550nm, M=1
Dark current	I _D	-	15	65	nA	V _R =V _B × 0.9
Breakdown voltage	V _B	35	45	55	V	I _D =10μA
Temperature coefficient of V _B	ΔV _B /ΔT	0.08	0.10	0.12	V/°C	
Chip capacitance	C _{chip}	-	0.54	0.65	pF	f=1MHz
Total capacitance	C _t	-	0.9	1.1	pF	f=1MHz

- Specifications, characteristics, data, materials, structures specified in this datasheet are subject to change without notice. Please refer to the latest specification before use of the products.
- Products listed in this datasheet comply with the RoHS Directive (EU2002/95/EC).

Opto-technologies for the Future



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