

KP-A InGaAs Avalanche Photodiodes

KPDEA005-56F

InGaAs avalanche photodiode
 \varnothing 5.6mm CAN package with flat window cap

Characteristics

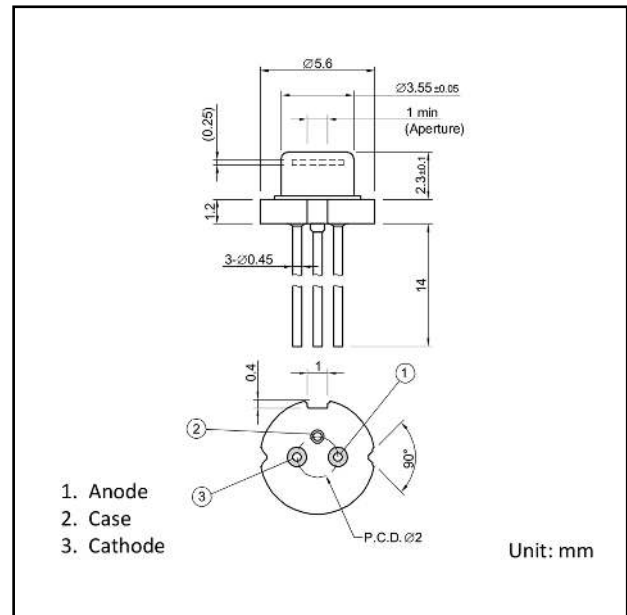
- High speed (Up to 2.5Gbps)
- Low dark current
- High sensitivity

Applications

- SONET
- G-PON, GE-PON

Package

- TO-CAN



Absolute Maximum Ratings

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

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Active area	D	-	0.055	-	mm	-
Bandwidth	BW	-	3.0	-	GHz	M=10
Responsivity	R	0.85 0.95	0.95 1.05	-	A/W	$\lambda = 1310\text{nm}, M=1$ $\lambda = 1550\text{nm}, M=1$
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	0.1	0.12	V/°C	-
Chip capacitance	C_{chip}	-	0.38	0.5	pF	f=1MHz
Total capacitance	C_t	-	0.68	0.8	pF	f=1MHz

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