

KP-A InGaAs Avalanche Photodiodes

KPDEA13C

Characteristics

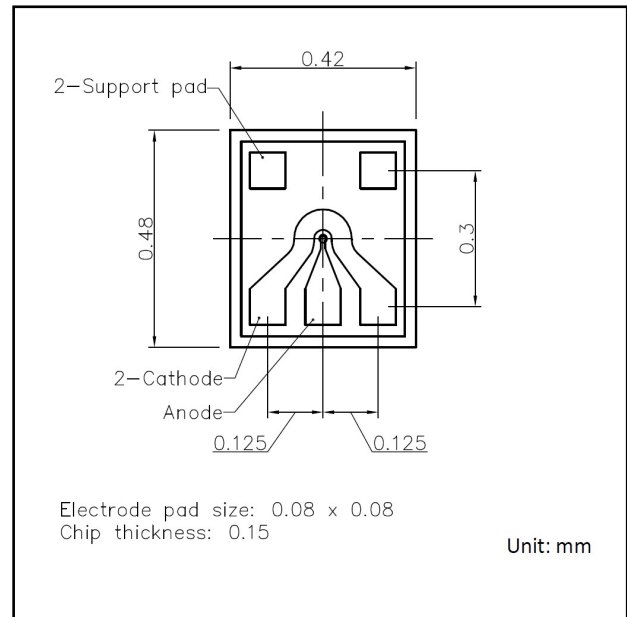
- High speed
- Surface incident type
- GSG (Ground / Signal / Ground) Electrode pattern

Applications

- QSFP28-ER4
- QSFP56-ER4

Package

- CHIP



Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Conditions
Reverse voltage	V_R	27	V	-
Reverse Current	I_R	10	mA	-
Forward current	I_F	10	mA	-
Operating temperature	T_{opr}	-40 to +85		Avoid dew condensation
Storage temperature	T_{stg}	-40 to +85		Avoid dew condensation

Electrical and Optical characteristics ($T_a=25$ unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Active area	D	-	13	-	μm	-
Bandwidth	BW	-	15	-	GHz	with TIA
Sensitive wavelength		900	-	1700	nm	-
Responsivity	R	-	0.5	-	A/W	$V_R = 13\text{V}$ $\lambda = 1310\text{nm}$
Dark current	I_D	-	2	-	μA	$V_R = 0.9 \times V_B$ $\lambda = 1310\text{nm}$
Breakdown voltage	V_B	-	27	-	V	$I_R = 100\mu\text{A}$
Chip capacitance	C_{chip}	-	75	-	fF	$V_R = 13\text{V}$
Cutoff frequency	f_c	-	15	-	GHz	with TIA
Multiplication factor	M	-	4.5	-	-	$V_R = 0.9 \times V_B$ $\lambda = 1310\text{nm}$

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