

KP-M InGaAs Photodiodes for Monitoring KPDE008S-D

Characteristics

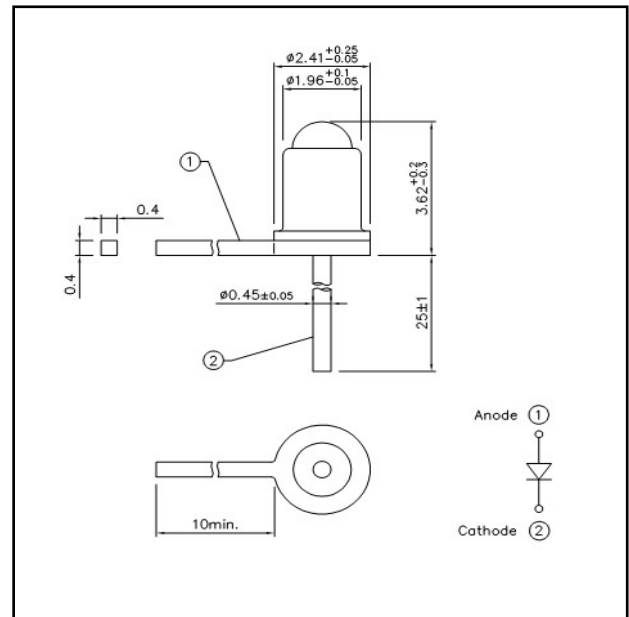
- Small size for high density packaging
- Low capacitance and high speed with a PIN structure
- Low dark current
- High reliability

Applications

- Light monitoring

Package

- TO-CAN



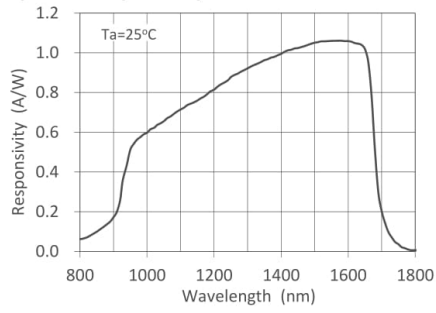
Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Conditions
Reverse voltage	V_R	20	V	-
Maximum optical power input	P_{imax}	10	mW	-
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

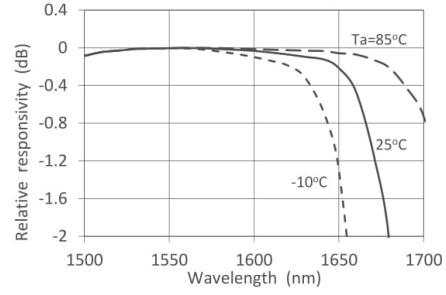
Electrical and Optical characteristics (Ta=25 unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Active area	S	-	80	-	μm	-
Sensitive wavelength		900	-	1700	nm	-
Bandwidth	BW	-	2	-	GHz	$R_L=50 \quad P_i=-10\text{dBm} \quad V_R=5\text{V}$
Responsivity	R	0.8 0.9	-	-	A/W	$V_R=5\text{V} \quad =1310\text{nm}$ $V_R=5\text{V} \quad =1550\text{nm}$
Dark current	I_D	-	-	160	pA	$V_R=5\text{V}$
Total capacitance	C_t	-	-	1.1	pF	$V_R=5\text{V} \quad f=1\text{MHz}$

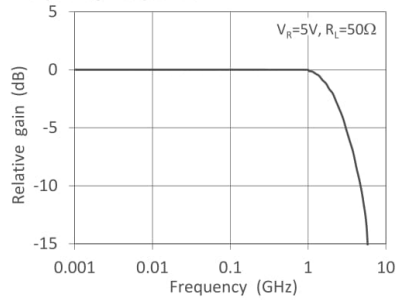
Spectral Responsivity



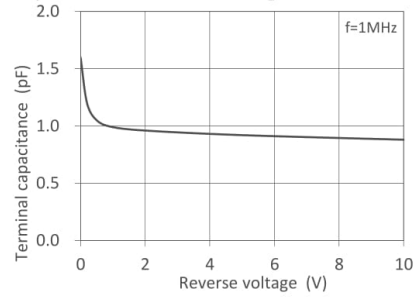
Uniformity of Spectral Responsivity



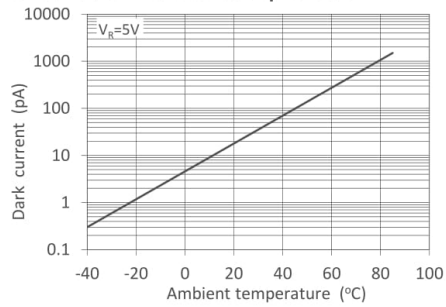
Frequency Response



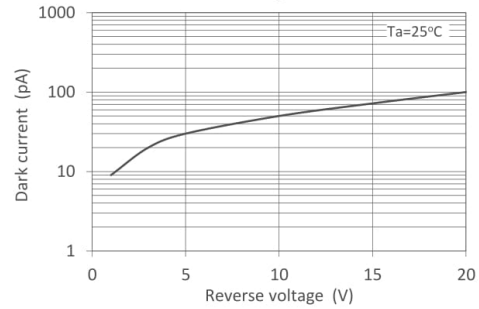
Capacitance - Reverse Voltage



Dark Current - Ambient Temperature



Dark Current - Reverse Voltage



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