

## KP-E Edge Illuminated InGaAs Photodiodes KPEIMC-100

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### Characteristics

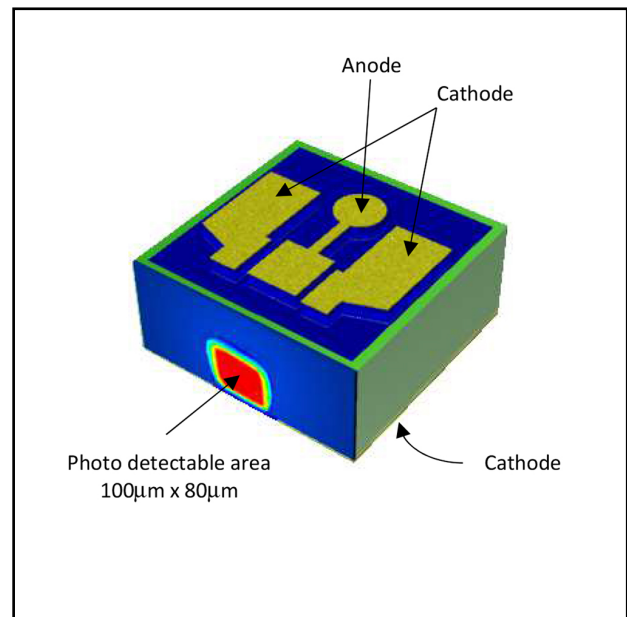
- Edge illuminated type for surface hybrid integration
- Low dark current
- High reliability

### Applications

- Laser back light power monitors
- FTTH digital optical communications
- Optical interconnection

### Package

- CHIP



## 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

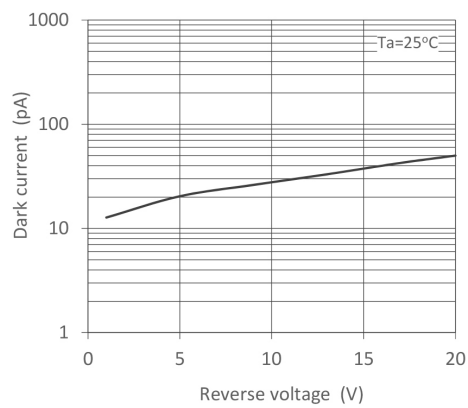
## Electrical and Optical characteristics (Ta=25 °C VR=5V unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Sensitive wavelength		900	-	1700	nm	-
Bandwidth	BW	0.8	1.5	-	GHz	$P_i = -10\text{dBm}$ $V_R = 5\text{V}$
Responsivity	R	0.5 0.65	0.7 0.8	-	A/W	$V_R = 5\text{V}$ = 1310nm $P_i = -10\text{dBm}$ $V_R = 5\text{V}$ = 1550nm $P_i = -10\text{dBm}$
Dark current	$I_D$	-	35	300	pA	$V_R = 5\text{V}$
Chip capacitance	$C_{chip}$	-	0.85	1.2	pF	f=1MHz
Total capacitance	$C_t$	-	0.85	1.2	pF	$V_R = 5\text{V}$ f=1MHz

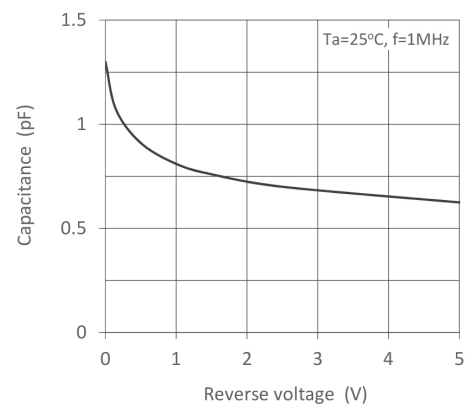
## Pigtail Specifications characteristics

Parameter	Specification	Tolerance	Unit	Conditions
Chip size	350 x 350	+/- 25	μm	-
Chip height	150	+/- 20	μm	-
Photo detectable area	100 x 80	+/- 10	μm	1dBダウン

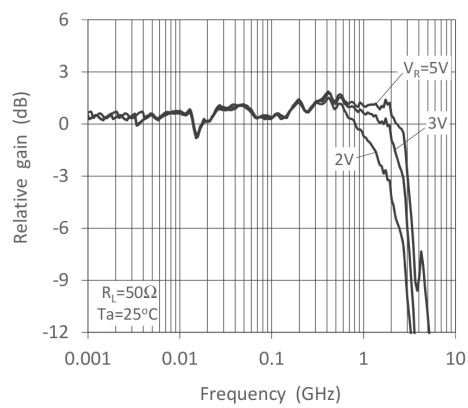
Dark Current - Reverse Voltage



Capacitance - Reverse Voltage



Frequency Response



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