InGaAs Photodiodes

KPDEH16DLC

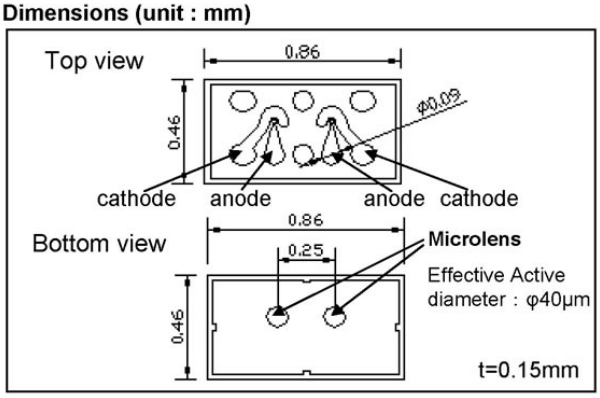
Features

- Back surface illuminated type
- Large alignment tolerance
- Ultra high speed

Applications

- 100GHz Digital Coherent System
- 100GbE/40GbE(IEEE802.3ba)

Dimensions (unit : mm)



Specifications

Absolute Maximum Ratings

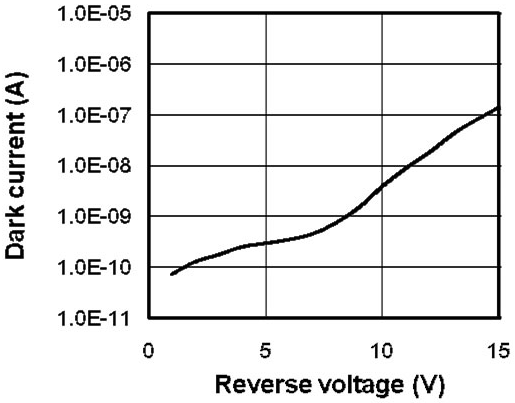
Parameter	Symbol	Value	Unit	Conditions
Reverse voltage	V_R	15	V	
Reverse Current	I_R	10	mA	
Forward current	I_F	5	mA	
Operating temperature	T_{opr}	-40 to +85	℃	To avoid a dew condensation
Storage temperature	T_{stg}	-40 to +85	℃	To avoid a dew condensation

Electrical and Optical characteristics

Parameter	Symbol	Value			Unit	Conditions
		Min.	Typ.	Max		
Sensitive size	D		40		μmΦ	P_in=0dBm, from SMF 50um aparted 10% down
Bandwidth	BW	25	28		GHz	λ=1550nm, R_L=50Ω, V_R=2V, small signal modulation
Responsivity	R	0.65	0.75		A/W	V_R=2V, λ=1550nm
Dark current	I_D		0.5	5	nA	V_R=2V
Chip capacitance	C_{chip}		0.08	0.10	pF	V_R=2V, f=1MHz
Optical Return Loss	OR_L	0			dB	0
Polarization Dependent Loss	P_DL			0	dB	0

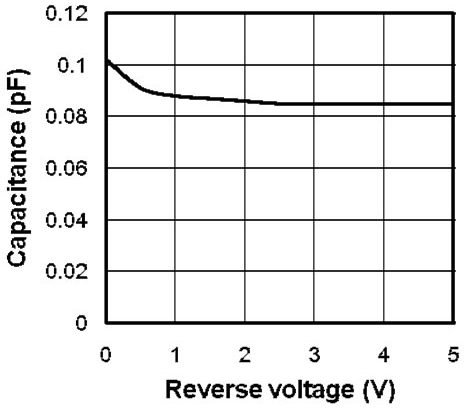
I-V Characteristics

(Ta= 25°C)



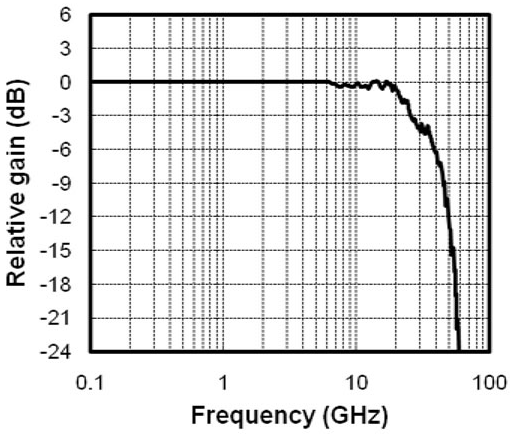
C-V Characteristics

(Ta= 25°C,f=1MHz)



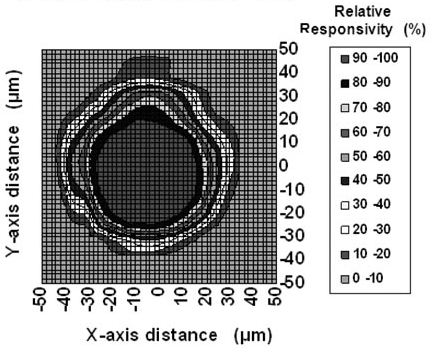
Frequency response

(λ = 1550nm, R_L=50 ohm, V_R=2V, Ta= 25°C)



Response Distribution of at rear side

(Distance of PD and the fiber= 50μm,
λ=1550nm, Pin=0dBm,Ta=25℃)



(1103/KPDEH16DLC)

Kyosemi Corporation