

KIP-M25-1

Description

KIP-M25-1 is InGaAs PIN Photodiode chip with □250 um active square.
It is recommended for optical data communication and power monitoring.



Features

- Front illuminated planar PIN-PD
- Low capacitance and low dark current
- High reliability and environmental endurance
- Wide operating wavelength range from 1.1mm to 1.6mm

Applications

- Optical Data Communications
- Optical power monitoring

Absolute Maximum Ratings

Parameter	Symbol	Ratings	Unit
Reverse Voltage	V_R	20	V
Maximun Optical Power Input	P_{max}	30	mW
Forward Current	I_F	10	mA
Operating Temperature	T_{opr}	-40 ~ +85	°C
Storage Temperature	$T_{stg.}$	-40 ~ +100	°C
Die- Attach Temperature *1		300	°C

*1 : Attach Temperature Time ≤ 60 seconds max

Electro-Optical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Active area	D		□ 250		μm	
Dark Current	I_D		0.1	1.0	nA	@ $V_R=5V, 25^\circ C$
Responsivity	S	1.31um	0.85	0.90	mA/mW	@ $V_R=5V, 25^\circ C$
		1.55um	0.90	0.95		
3dB Cut off frequency	$f_{h,-3dB}$	0.1	0.5	-	GHz	@ $V_R=5, R_L=50\Omega$
Capacitance	C_p		5	7	pF	@ $V_R=5V, f=1MHz$

* These specifications are subject to change without notice.

Physical Dimension Properties

Parameter	Symbol	Typ.	Unit
Active area	D	□ 250	μm
Chip Size	-	420 x 420	μm ²
bonding Pad Size (Ø)	-	100	μm
Chip Thickness	t	120	μm

Ordering information

KIP	Data Rate	Active area	Carrier type
KODENSHI InGaAs PIN Photodiode Chip	M: Monitoring	05: Ø50 μm	1: chips in gel pack
	1: 1.5 Gbps	07: Ø75 μm	2: chips on submounter
	2: 2.5 Gbps	25: □ 250 sq μm	
			3: chips on blue tape