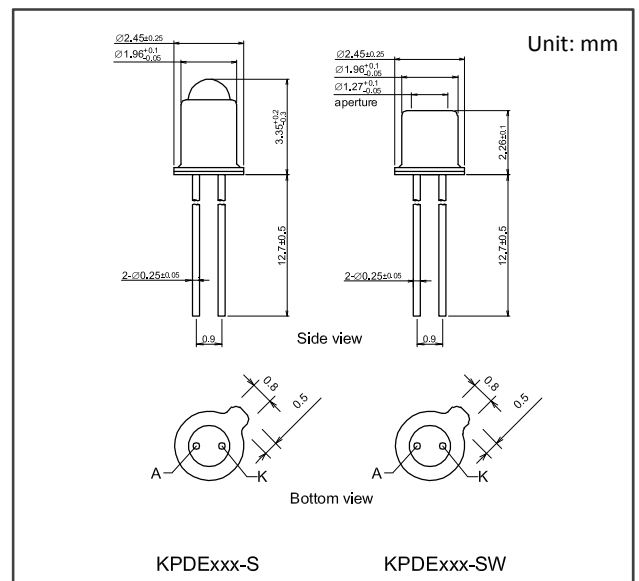


Features

- Isolated pins from can (body)
- Small size for high density packaging
- Low capacitance and high speed with a PIN structure
- Low dark current
- High reliability
- Pigtail type available as an option
- Window cap type available (-SW)

Applications

- Digital and analog optical communications
- Optical LAN
- OTDR

**Absolute Maximum Ratings**

Parameter		Symbol	Value	Unit	Note
Reverse voltage		V_R	20	V	
Maximum optical power input	KPDE008-S	$P_{i\max}$	10	mW	
	KPDE020-S		20		
	KPDE030-S		30		
Forward current		I_F	10	mA	
Operating temperature		T_{opr}	-40 to +85	°C	Avoid dew condensation
Storage temperature		T_{stg}	-40 to +85	°C	Avoid dew condensation

1) KPDE008-S, KPDE008-SW**Electrical and Optical Characteristics** ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Active diameter	D	80			μm	
Bandwidth	BW	-	2.0	-	GHz	$R_L=50\Omega$, $P_i=-10\text{dBm}$, $V_R=5\text{V}$
Responsivity	R	0.8	-	-	A/W	$\lambda=1310\text{nm}$, $V_R=5\text{V}$
		0.9	-	-		$\lambda=1550\text{nm}$, $V_R=5\text{V}$
Dark current	I_D	-	-	160	pA	$V_R=5\text{V}$
Total capacitance	C_t	-	-	1.1	pF	$V_R=5\text{V}$, $f=1\text{MHz}$

2) KPDE020-S, KPDE020-SW

Electrical and Optical Characteristics (Ta=25°C unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Active diameter	D	200			μm	
Bandwidth	BW	-	1.0	-	GHz	$R_L=50\Omega$, $P_i=-10\text{dBm}$, $V_R=5\text{V}$
Responsivity	R	0.8	-	-	A/W	$\lambda=1310\text{nm}$, $V_R=5\text{V}$
		0.9	-	-		$\lambda=1550\text{nm}$, $V_R=5\text{V}$
Dark current	I_D	-	-	400	pA	$V_R=5\text{V}$
Total capacitance	C_t	-	-	5	pF	$V_R=5\text{V}$, $f=1\text{MHz}$

3) KPDE030-S, KPDE030-SW

Electrical and Optical Characteristics (Ta=25°C unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Active diameter	D	300			μm	
Bandwidth	BW	-	0.6	-	GHz	$R_L=50\Omega$, $P_i=-10\text{dBm}$, $V_R=5\text{V}$
Responsivity	R	0.8	-	-	A/W	$\lambda=1310\text{nm}$, $V_R=5\text{V}$
		0.9	-	-		$\lambda=1550\text{nm}$, $V_R=5\text{V}$
Dark current	I_D	-	-	600	pA	$V_R=5\text{V}$
Total capacitance	C_t	-	-	6	pF	$V_R=5\text{V}$, $f=1\text{MHz}$

- Specifications , characteristics, data, materials, structures specified in this datasheet are subject to change without notice. Please refer to the latest specification before use of the products.
- Products listed in this datasheet comply with the RoHS Directive (EU2002/95/EC).

Opto-technologies for the Future



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