

InGaAs PIN Photodiode



KPPB1-LG125

InGaAs PIN Photodiode is high sensitive and reliable for data and telecommunication applications.

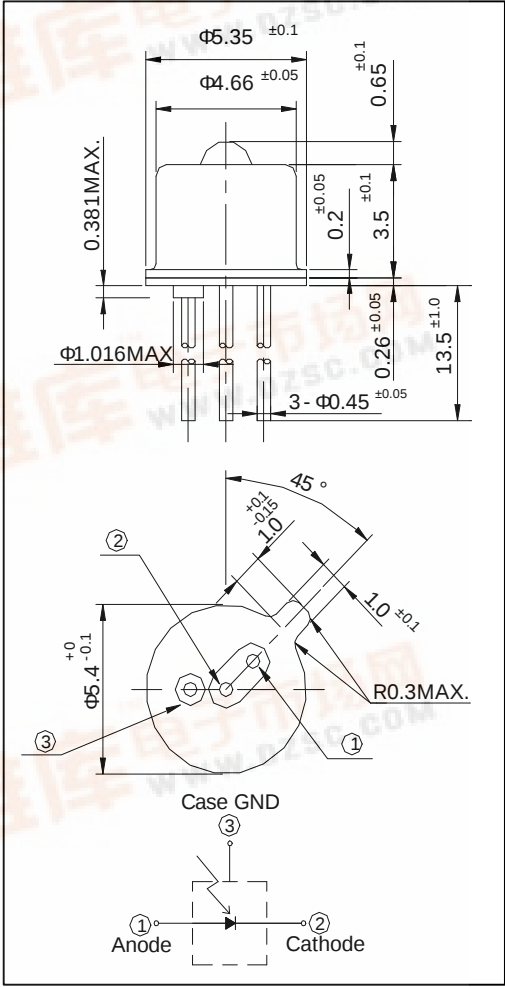
FEATURES

- Industry standard TO-46 package with cap lens.
- Optimized for fiber optic application.
- High coupling efficiency to multi-mode fibers directly.
- Low dark current and low capacitance.

APPLICATIONS

- Optical fiber communications
- Fiber channel
- Gigabit Ethernet

DIMENSION Unit:(mm)



ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Ratings	Unit
Operating Temperature	$T_{opr.}$	-40~+80	
Storage Temperature	$T_{stg.}$	-40~+100	
Reverse Voltage	V_R	30	V
Reverse Current	I_R	0.5	mA
Forward Current	I_F	2	mA

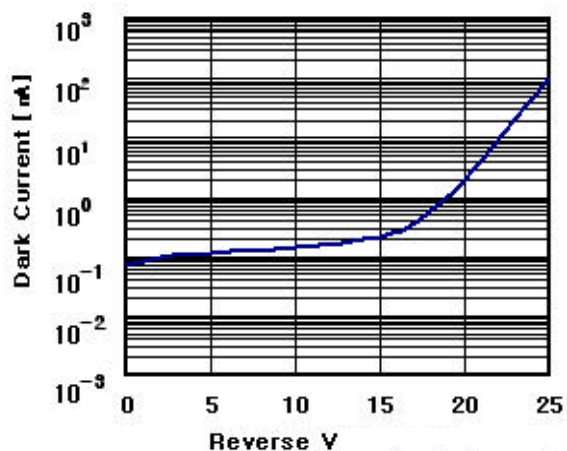


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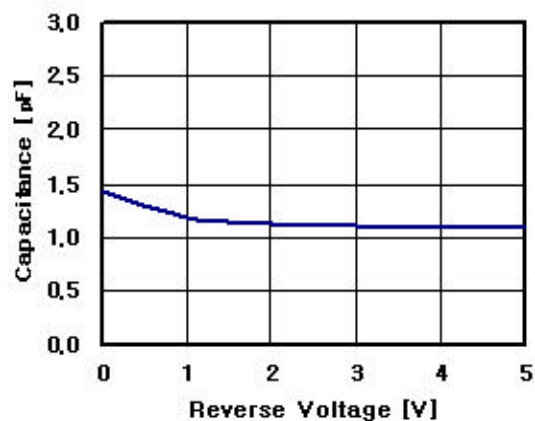
ELECTRO - OPTICAL CHARACTERISTICS

Parameter		Symbol	Min	Typ	Max	Unit	Test Conditions
Active area		-	-	Φ 50	-	μm	
Spectral response range		λ	0.9	-	1.7	μm	
Peak sensitivity wavelength		λ_p		1.55		μm	
Photo sensitivity	$\lambda=1.3\mu\text{m}$	S	0.8	0.9	-	A/W	$V_R=5V$
	$\lambda=1.55\mu\text{m}$		0.85	0.95	-		
Dark current		I_{DARK}	-	0.1	1	nA	$V_R=5V$
3 dB cut-off frequency		$f_{-3\text{dB}}$	2.0			GHz	$V_R=5V, R_L=50\Omega$
Terminal capacitance		C_t	-	1.0	1.3	pF	$V_R=5V, f=1\text{MHz}$

Dark Current vs. Reverse Voltage



C-V characteristics



Dark Current vs. Operating Temperature

