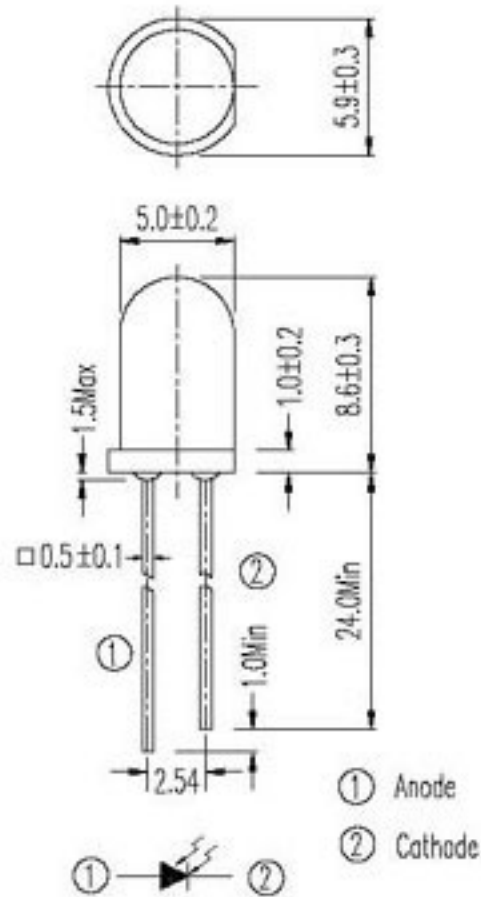


PIN Photo Diodes

Model No: PD504

Package Dimensions



- Notes: 1.All dimensions are in millimeters
2.Tolerances unless dimensions ± 0.25 mm

Absolute Maximum Ratings ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Units
Reverse Voltage	V_R	32	V
Operating Temperature	T_{opr}	$-25 \sim +85$	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-40 \sim +85$	$^\circ\text{C}$
Soldering Temperature	T_{sol}	260	$^\circ\text{C}$
Power Dissipation at(or below) 25°C Free Air Temperature	P_c	150	mW

Notes: *1:Soldering time ≤ 5 seconds.

PIN Photo Diodes

Model No: PD504

Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Rang Of Spectral Bandwidth	$\lambda_{0.5}$	---	840	---	1100	nm
Wavelength Of Peak Sensitivity	λ_p	---	---	940	---	nm
Open-Circuit Voltage	V_{OC}	$E_e=5\text{mW/cm}^2$ $\lambda_p=940\text{nm}$	---	0.42	---	V
Short- Circuit Current	I_{SC}	$E_e=1\text{mW/cm}^2$ $\lambda_p=940\text{nm}$	---	3.0	---	μA
Reverse Light Current	I_L	$E_e=1\text{mW/cm}^2$ $\lambda_p=940\text{nm}$ $V_R=5\text{V}$	1.0	3.0	---	μA
Reverse Dark Current	I_D	$E_e=0\text{mW/cm}^2$ $V_R=10\text{V}$	---	---	10	nA
Reverse Breakdown Voltage	B_{VR}	$E_e=0\text{mW/cm}^2$ $I_R=100\mu\text{A}$	32	170	---	V
Total Capacitance	C_t	$E_e=0\text{mW/cm}^2$ $V_R=5\text{V}$ $f=1\text{MHz}$	---	5	---	pF
Rise Time	t_r	$V_R=10\text{V}$ $R_L=1000\Omega$	---	6	---	nS
Fall Time	t_f		---	6	---	

Typical Electro-Optical Characteristics Curves

Fig.1 Power Dissipation vs.
Ambient Temperature

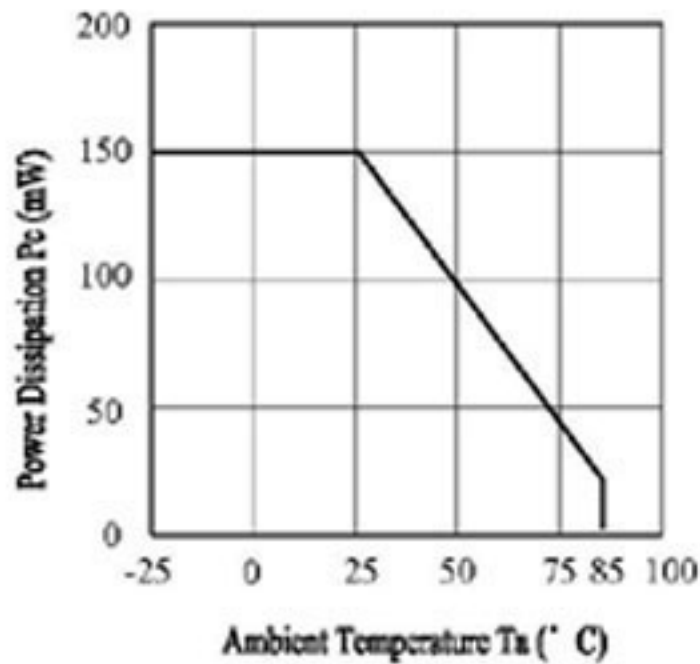


Fig.2 Spectral Sensitivity

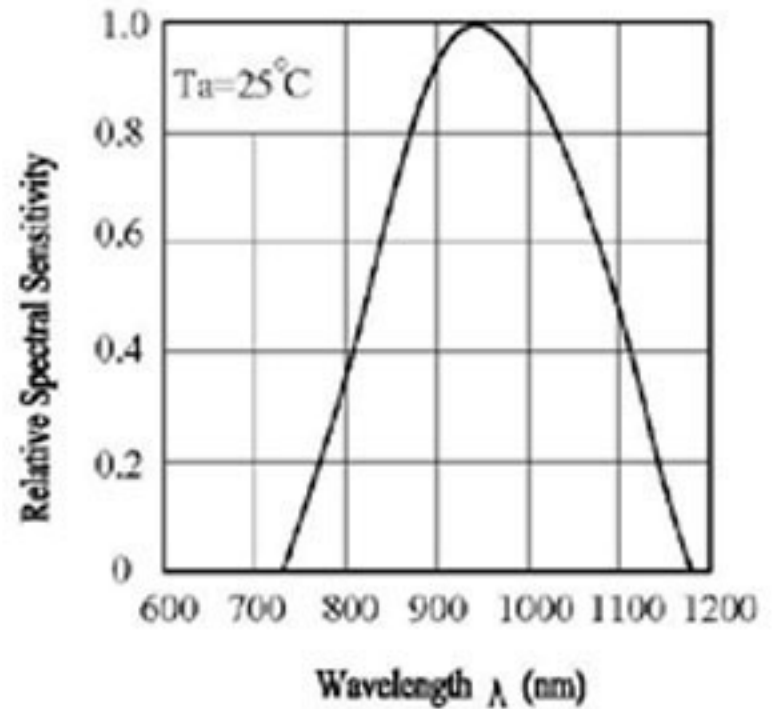


Fig.3 Dark Current vs.
Ambient Temperature

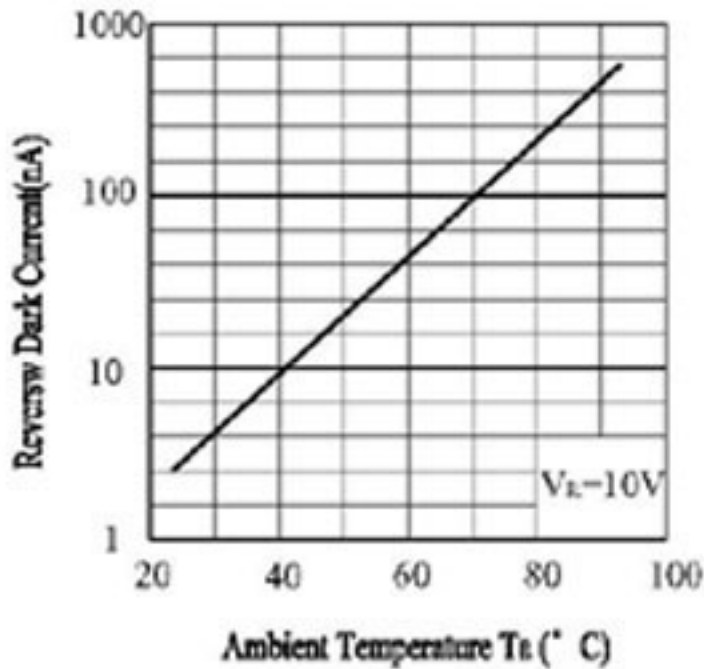
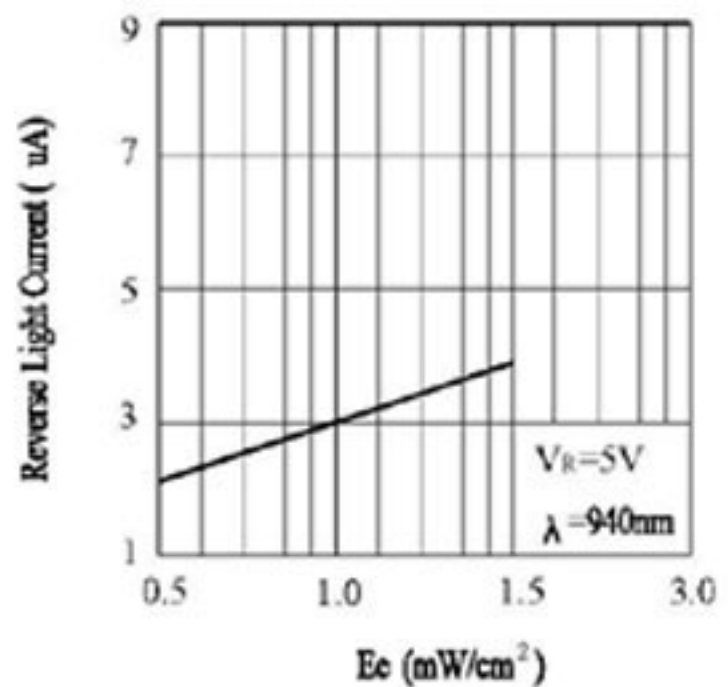


Fig. 4 Reverse Light Current vs.
 E_c



Typical Electro-Optical Characteristics Curves

Fig.5 Terminal Capacitance vs.
Reverse Voltage

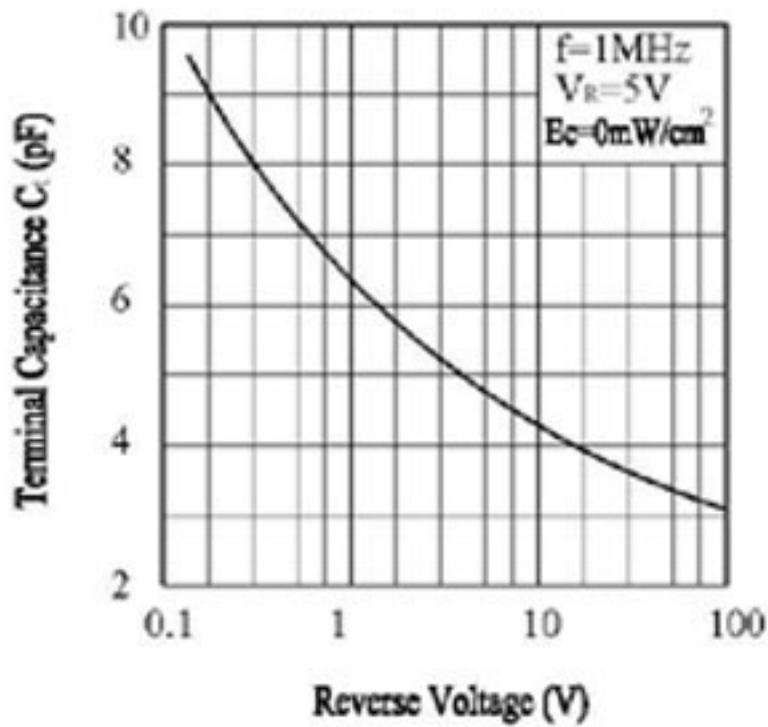


Fig.6 Response Time vs.
Load Resistance

