

PN304K

Si PIN Quad Photodiode

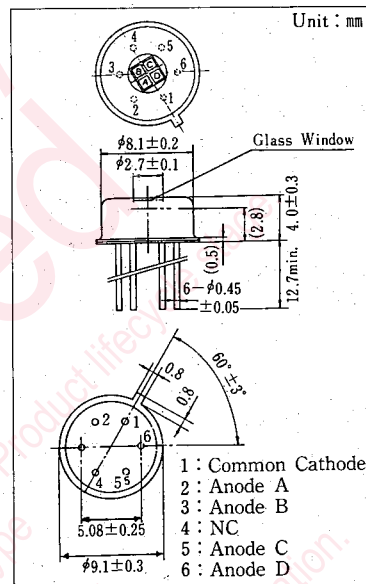
Optical Information Systems

■ Features

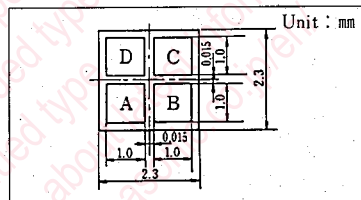
- Fast response: $t_r, t_f=20\text{ns}$
- Good linearity of photo current
- Low dark current: $I_D=10\text{nA (max.)}$
- Wide spectral response

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

Item	Symbol	Value	Unit
Reverse Voltage (DC)	V_R	30	V
Power Dissipation	P_D	30	mW
Operating Ambient Temperature	T_{opr}	$-30 \sim +100$	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-40 \sim +100$	$^\circ\text{C}$



■ Dimensions



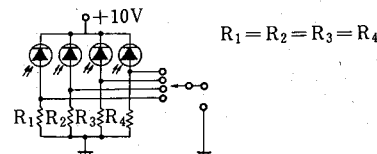
■ Electro-Optical Characteristics ($T_a=25^\circ\text{C}$)

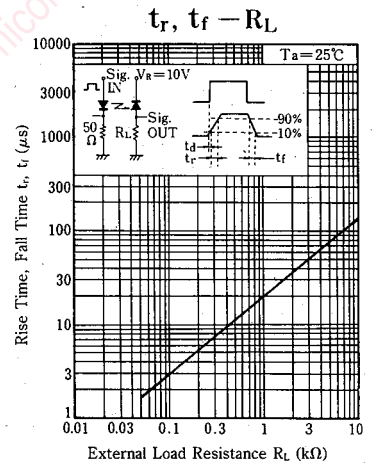
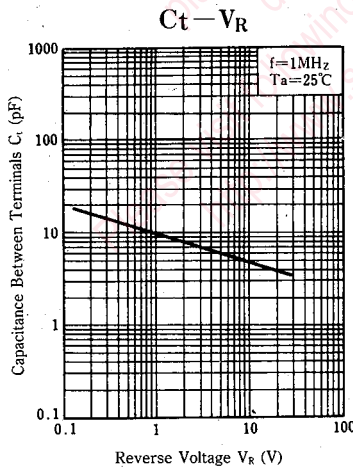
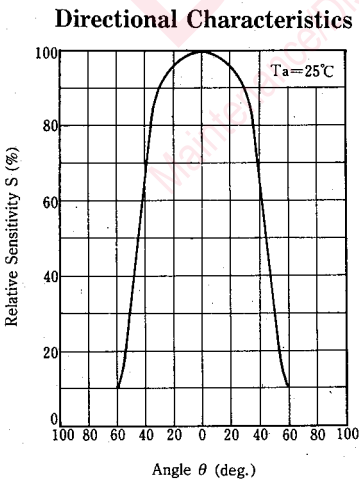
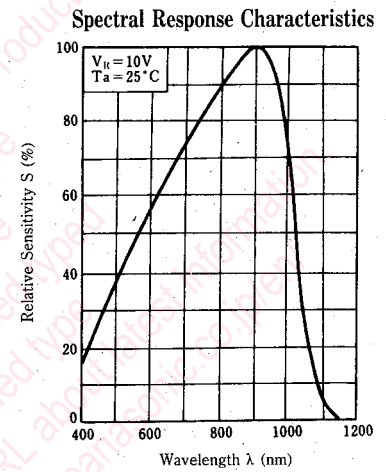
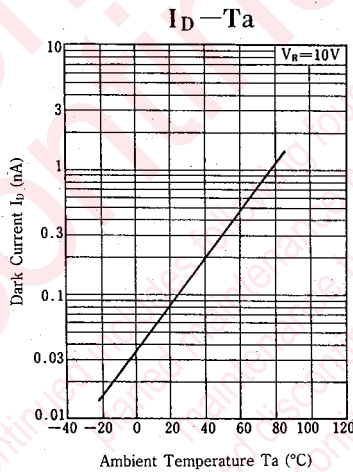
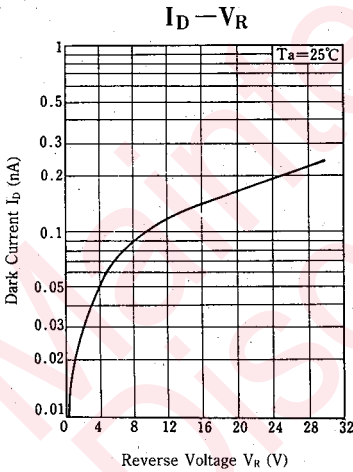
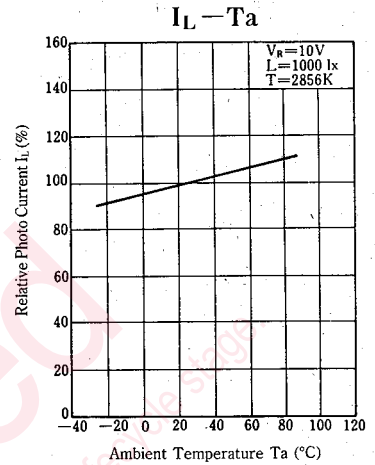
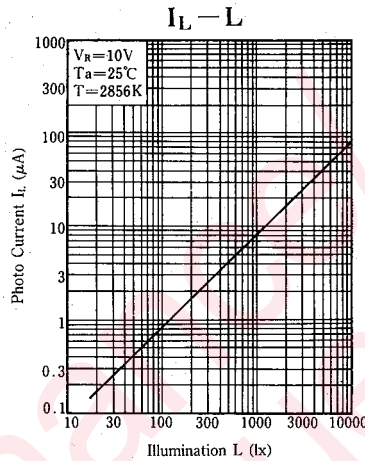
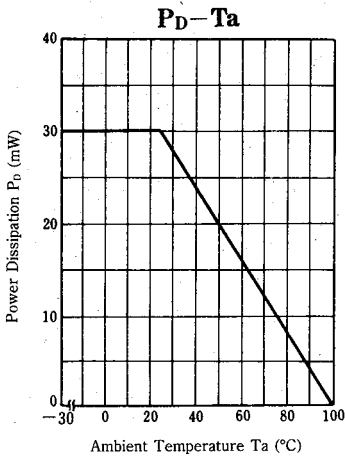
Item	Symbol	Condition	min.	typ.	max.	Unit
Reverse Voltage (DC)	V_R	$I_R = 10 \mu\text{A}$	30			V
Dark Current	I_D	$V_R = 10 \text{V}$		1	10	nA
Photo Current	I_L^{*3}	$V_R = 10 \text{V}, L = 1000 \text{lx}^{*1}$	6	8		μA
		$V_R = 10 \text{V}, \lambda = 800 \text{nm}, E = 1 \text{mW/cm}^2$		6		μA
Peak Sensitivity Wavelength	λ_P	$V_R = 10 \text{V}$		900		nm
Response Time	t_r, t_f^{*2}	$V_R = 10 \text{V}, R_L = 1 \text{k}\Omega$		20		ns
Capacitance between Terminals	C_t	$V_R = 10 \text{V}, f = 1 \text{MHz}$		5		pF
Acceptance Half Angle	θ	Measured from the optical axis to the half power point		45		deg.

Note) Maximum Ratings and Characteristics are specified per each element.

*1 Source: Tungsten 2856K
 $(R_1 = R_2 = R_3 = R_4 = R_5 = R_6)$

*2 Source: Laser Diode $\lambda = 800 \text{nm}$





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