

TOSHIBA PHOTODIODE SILICON PIN

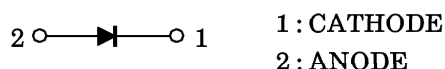
TPS723A

PIN PHOTODIODE FOR FIBER OPTIC SYSTEM

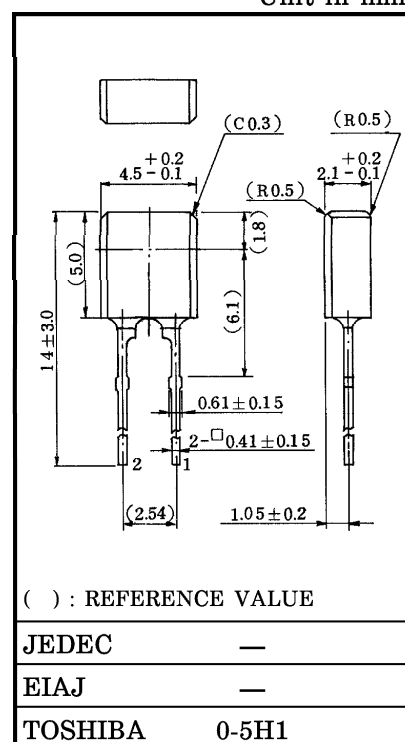
Unit in mm

- Small Dark Current : $I_D = 0.5\text{nA}$ (TYP.)
- High Sensitivity : $S_f = 0.37\text{A/W}$ (TYP.)
- High speed application is possible : $t_r, t_f = 100\text{ns}$ (TYP.)

PIN CONNECTION

MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	V_R	30	V
Power Dissipation	P_D	150	mW
Operating Temperature	T_{opr}	$-30 \sim 80$	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-40 \sim 100$	$^\circ\text{C}$

OPTICAL-ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Dark Current	I_D	$V_R = 10\text{V}$	—	0.5	8.0	nA
Fiber Coupled Sensitivity (Note)	S_f	$V_R = 10\text{V}, \lambda = 660\text{nm}, P_f = 1\mu\text{W}$	0.32	0.37	—	A/W
Peak Sensitivity Wavelength	λ_p	$V_R = 10\text{V}$	—	840	—	nm
Capacitance	C_T	$V_R = 10\text{V}, f = 1\text{MHz}$	—	10	—	pF
Switching Time	Rise Time	$V_R = 10\text{V}, R_L = 1\text{k}\Omega$	—	100	—	ns
	Fall Time		—	100	—	

(Note) Using plastic fiber cable, Fiber length=0.5m, Core Diameter=980 μm , NA=0.5

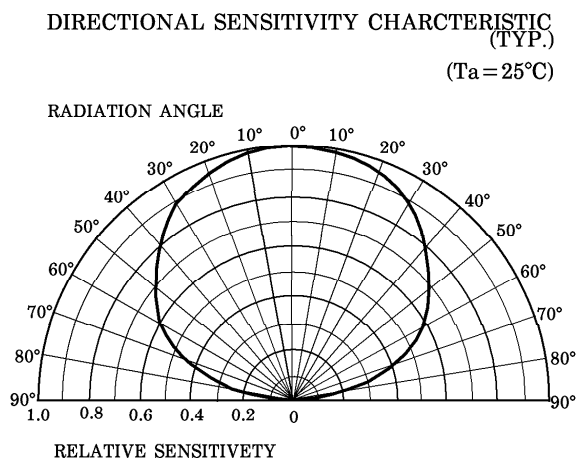
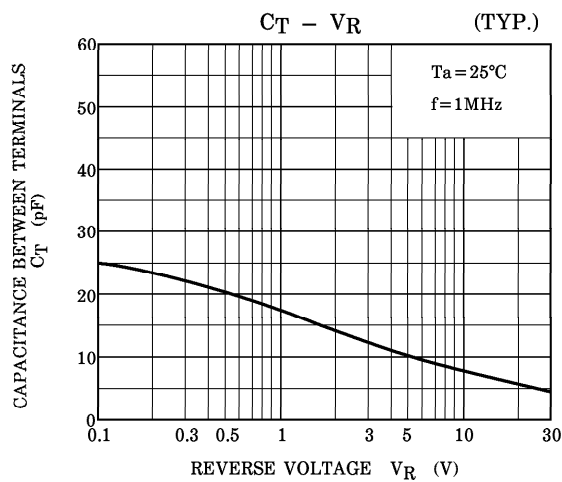
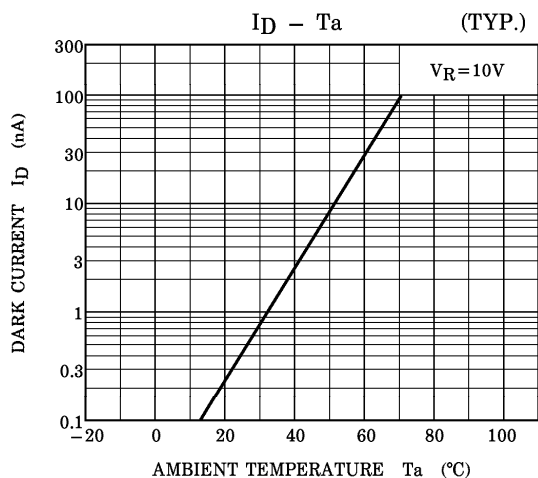
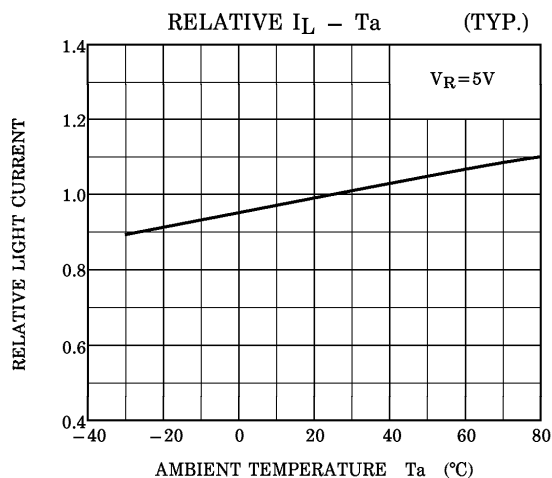
PRECAUTION

Please be careful of the followings.

1. Soldering temperature: 260°C MAX. Soldering time : 3sec MAX.
(Soldering portion of lead : up to 2.5mm from the body of the device)
2. If the lead is formed, the lead should be formed at a distance of 2.5mm from the body of the device. Soldering shall be performed after lead forming.

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