

TOSHIBA PHOTODIODE SILICON PIN

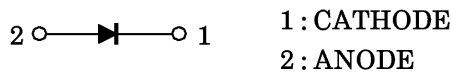
TPS723A

PIN PHOTODIODE FOR FIBER OPTIC SYSTEM

Unit : mm

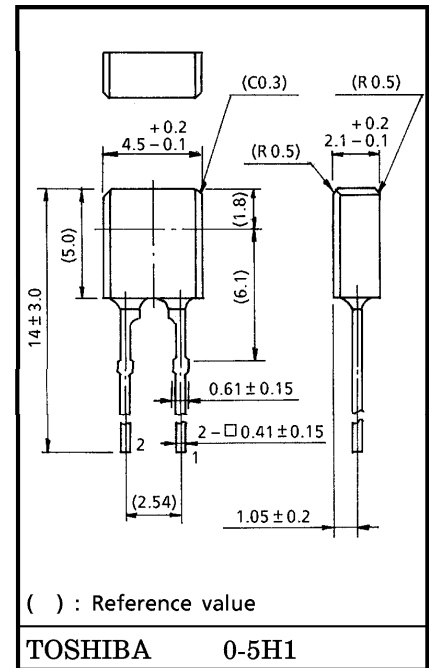
- Low Dark Current : $I_D = 0.5 \text{ nA (typ.)}$
- High Sensitivity : $S_f = 0.37 \text{ A/W (typ.)}$
- High-speed applications is possible : $t_r, t_f = 100 \text{ ns (typ.)}$

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}	-30~80	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40~100	$^\circ\text{C}$



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

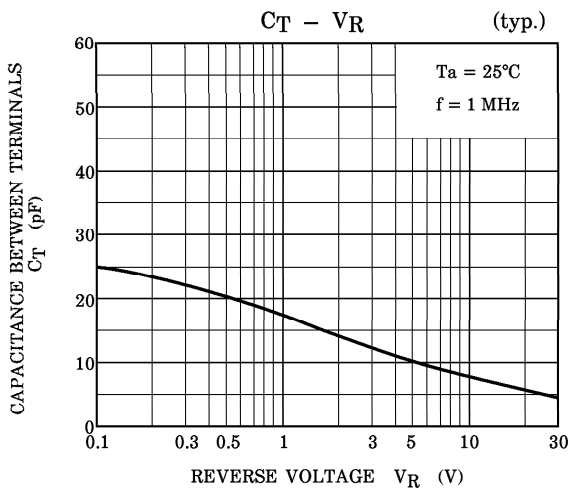
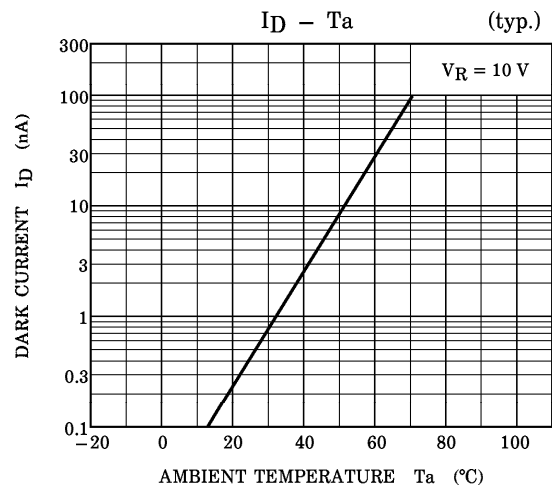
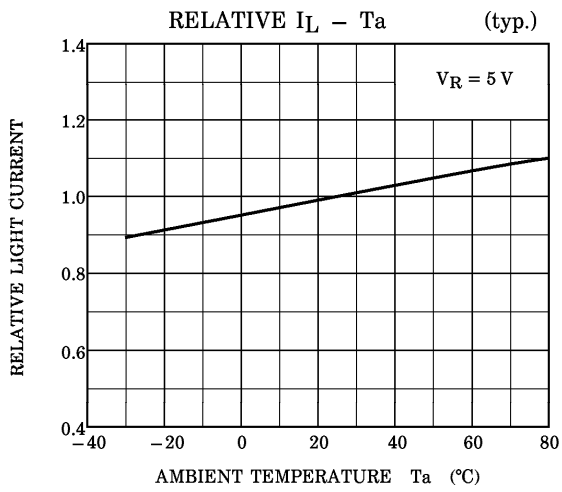
CHARACTERISTIC	SYMBOL	TEST CONDITION	Min	Typ.	Max	UNIT
Dark Current	I_D	$V_R = 10 \text{ V}$	—	0.5	8.0	nA
Fiber Coupled Sensitivity (Note)	S_f	$V_R = 10 \text{ V}, \lambda = 660 \text{ nm},$ $P_f = 1 \mu\text{W}$	0.32	0.37	—	A/W
Peak Sensitivity Wavelength	λ_P	$V_R = 10 \text{ V}$	—	840	—	nm
Capacitance	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) : Plastic fiber used : Fiber length 0.5 m, Core diameter 980 μm , NA 0.5

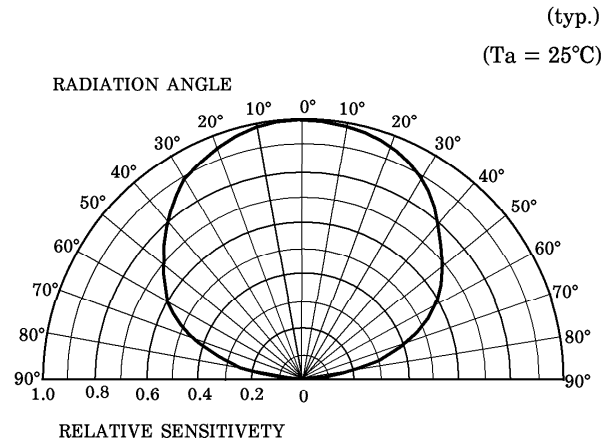
PRECAUTIONS

Please be careful of the followings.

1. Soldering temperature : 260 $^\circ\text{C}$ max
Soldering time : 3 s max
(Soldering must be performed 2.5 mm under the package body.)
2. When forming the leads, bend each lead under the 2.5 mm from the body of the device.
Soldering must be performed after the leads have been formed.



RADIATION PATTERN CHARACTERISTIC (typ.)



RESTRICTIONS ON PRODUCT USE

000707EAA

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