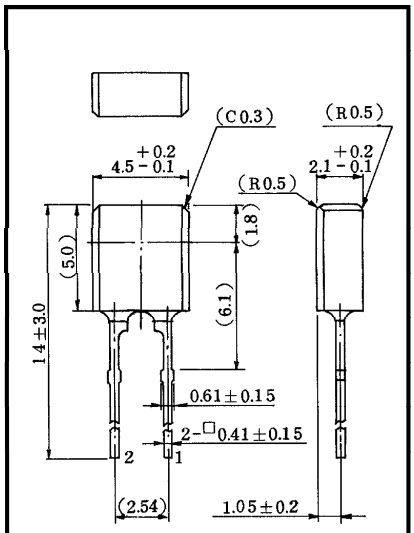
TOSHIBA PHOTODIODE SILICON PIN

TPS723A

PIN PHOTODIODE FOR FIBER OPTIC SYSTEM

Unit in mm

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



( ) : REFERENCE VALUE

JEDEC	—
EIAJ	—
TOSHIBA	0-5H1

PIN CONNECTION

1 : CATHODE
2 : ANODE

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	V_R	30	V
Power Dissipation	P_D	150	mW
Operating Temperature	T_{opr}	−30~80	°C
Storage Temperature	T_{stg}	−40~100	°C

OPTICAL-ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Dark Current		I_D	V_R = 10V	—	0.5	8.0	nA
Fiber Coupled Sensitivity (Note)		S_f	VR = 10V, λ = 660nm, Pf = 1μW	0.32	0.37	—	A / W
Peak Sensitivity Wavelength		λ_P	VR = 10V	—	840	—	nm
Capacitance		C_T	V_R = 10V, f = 1MHz	—	10	—	pF
Switching Time	Rise Time	t_r	V_R = 10V, R_L = 1kΩ	—	100	—	ns
	Fall Time	t_f		—	100	—	

(Note) Using plastic fiber cable, Fiber length = 0.5m, Core Diameter = 980μm, 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 form the body of the device)
2. If the lead is formed, the lead should be formed at a distance of 2.5mm form the body of the device. Soldering shall be performed after lead forming.

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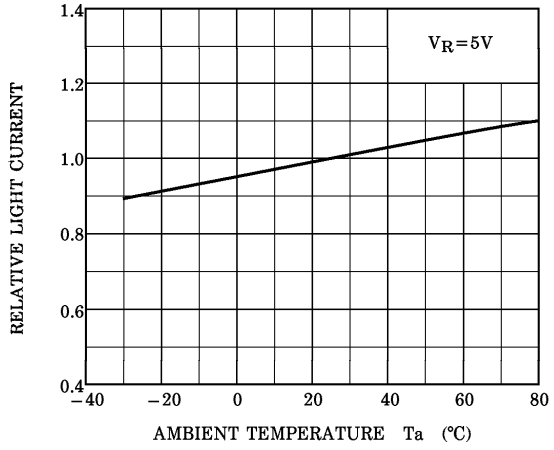
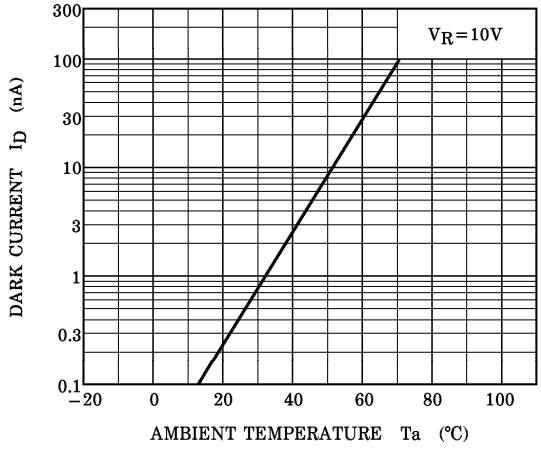
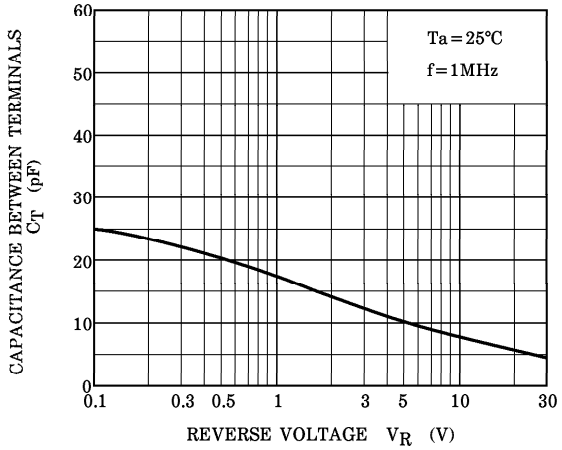
RELATIVE I_L – Ta (TYP.)



I_D – Ta (TYP.)

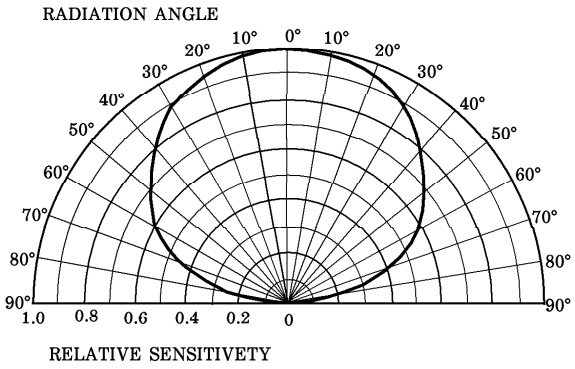


C_T – V_R (TYP.)



DIRECTIONAL SENSITIVITY CHARCTERISTIC (TYP.)

(Ta=25°C)



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