STANLEY

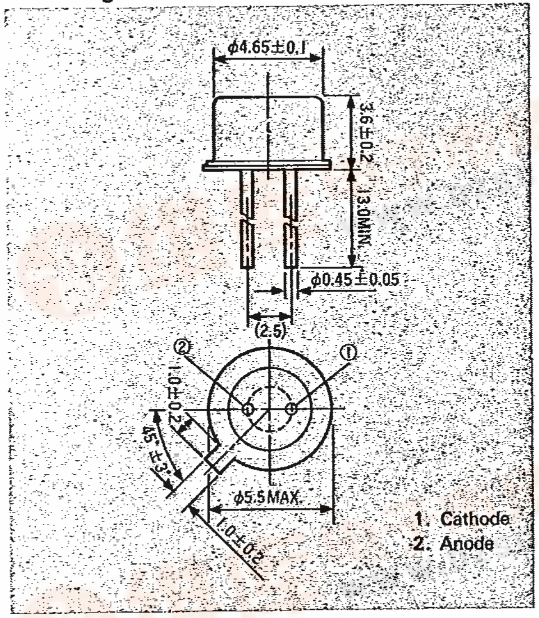
PP202

T-41-53

STANLEY SILICON PIN PHOTO DIODE

■ Package Dimensions

(Unit : mm±0.2)



■ FEATURES

(1) Ultra-highspeed response
(2) High sensitivity
(3) Wide spectral response
(4) Small dark current
(5) High reliability
(6) Highly linearity with respect to brightness

■ APPLICATIONS

(1) Ultra-highspeed optical communications
(2) Remote control
(3) Smoke detectors
(4) Sensors
(5) Auto-focus mechanisms
(6) Photoelectric switches

■ Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Maximum Ratings	Unit
Reverse Voltage	V_R	80	V
Power Dissipation	P	50	mW
Operating temperature	Topr	−30～+100	°C
Storage temperature	Tstg	−30～+125	°C

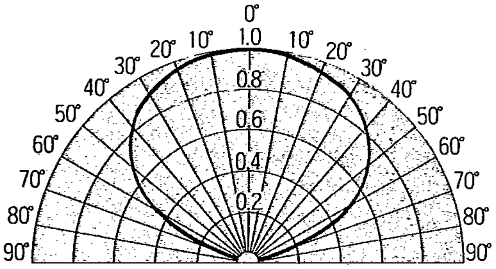
■ Electro-Optical Characteristics (Ta=25°C)

*At color temp. 2856°K standard tungsten filament bulb.

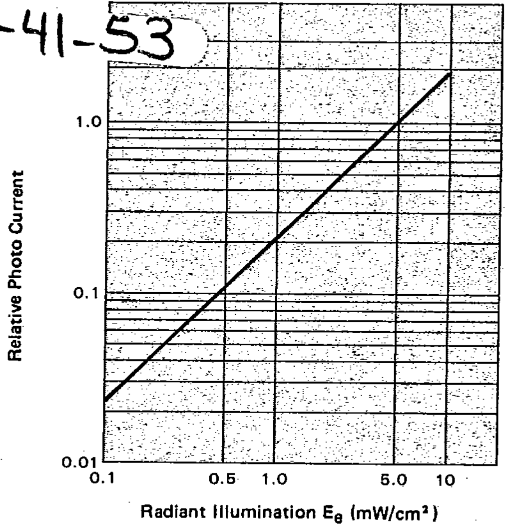
Item		Symbol	Min.	Typ.	Max.	Unit	Conditions
Dark Current		I_D	—	1	10	nA	V_R=10V
Photo current		I_P	9	13	—	μA	V_R=5V、*Ee=5mW/cm²
Response Time	Rise	tr	—	50	—	n sec	V_R=10V
	Fall	tf	—	50	—	n sec	RL=1000Ω
Capacitance		C_T	—	8	—	pF	V_R=10V、f_L=1MHz
Peak Sensitivity Wavelength		λp	—	950	—	nm	V_R=0V
Half-Intensity Directional Angle		Δθ	—	100	—	deg.	

T-41-53

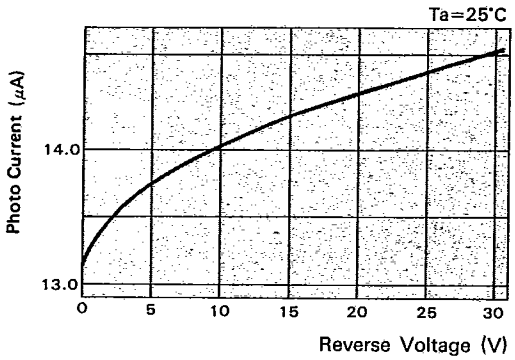
■ **Directivity Characteristics**



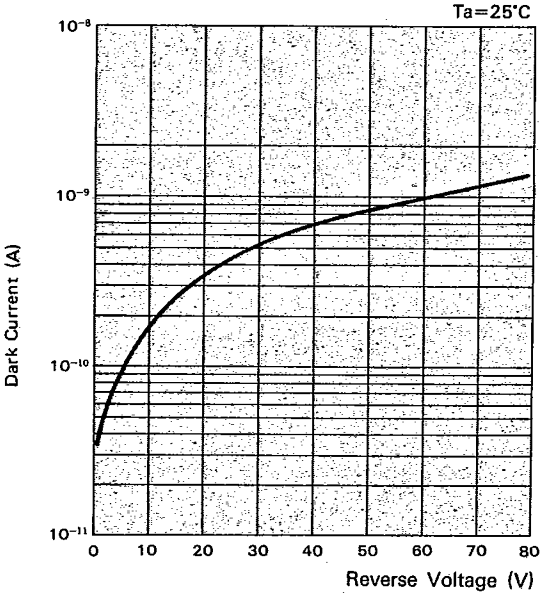
■ **Relative Photo Current Vs. Radiant Illumination**



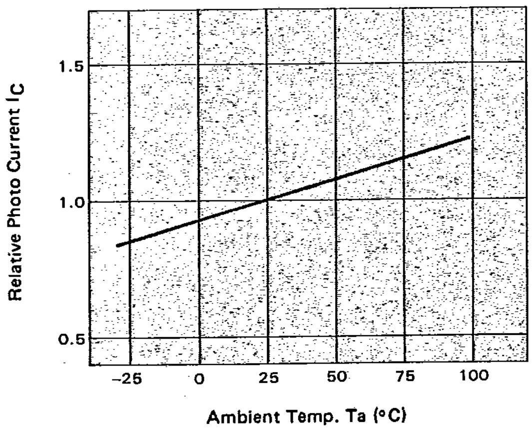
■ **Photo Current Vs. Reverse Voltage**



■ **Dark Current Vs. Reverse Voltage**

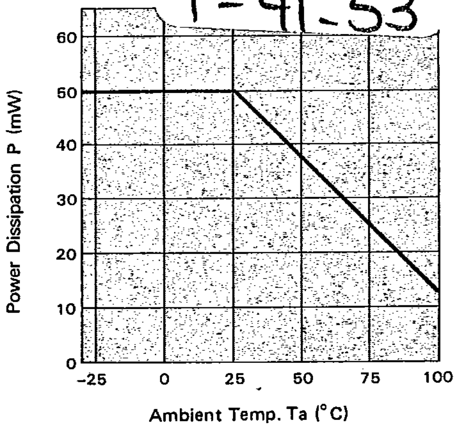


■ Photo Current Vs. Ambient Temp.

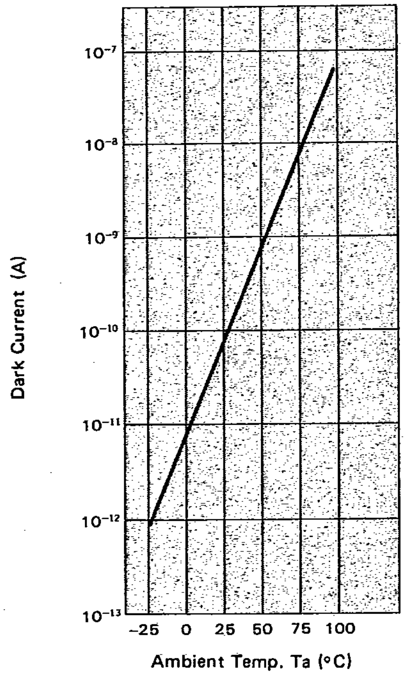


■ Power Dissipation Vs. Ambient Temp.

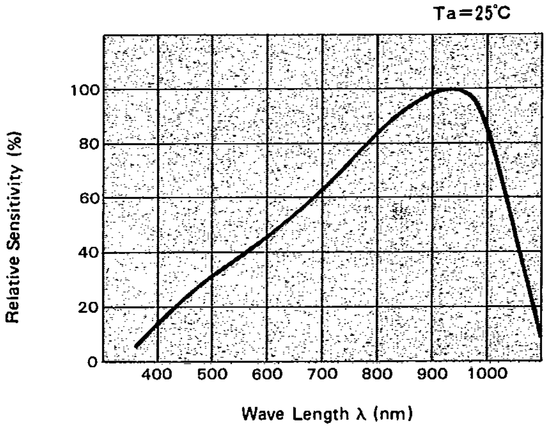
T-41-53



■ Dark Current Vs. Ambient Temp.



■ Spectral Sensitivity Characteristics



■ Terminal Capacitance Vs. Reverse Voltage