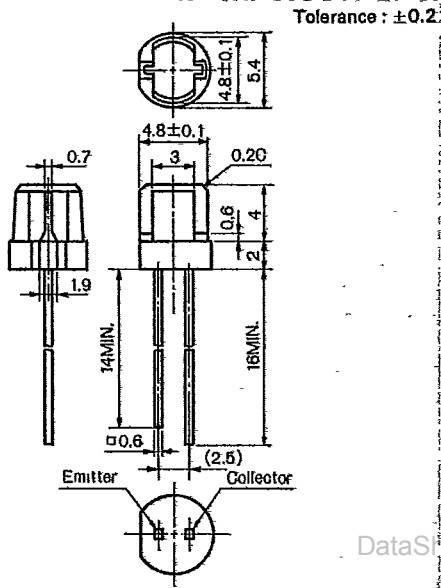


STANLEY PHOTO TRANSISTOR

Package Dimensions — Unit : mm



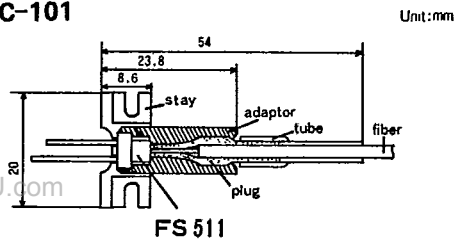
FEATURES

- (1) High accuracy by use of special resin package with centered chip
- (2) High photo current (Typ. 2.5mA at $E_e = 10\text{mW/cm}^2$)
- (3) Fast response permits fast transmission
- (4) Within $\pm 0.1\text{mm}$ accuracy for axis watching when connector FC-101 is used

APPLICATIONS

- Best suited for detectors for optical fiber

FC-101



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

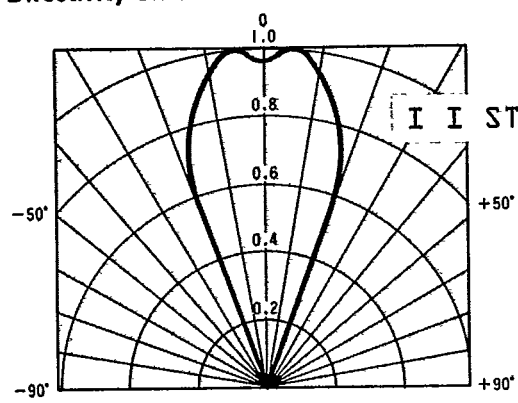
Item	Symbol	Maximum Ratings	Unit
Collector Dissipation	P_c	100	mW
Collector-Emitter Breakdown Voltage	V_{CE0}	30	V
Emitter-Collector Breakdown Voltage	V_{ECO}	5	V
Collector Current	I_c	30	mA
Operating Temperature	T_{opr}	-30 ~ +85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-30 ~ +100	$^\circ\text{C}$

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

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

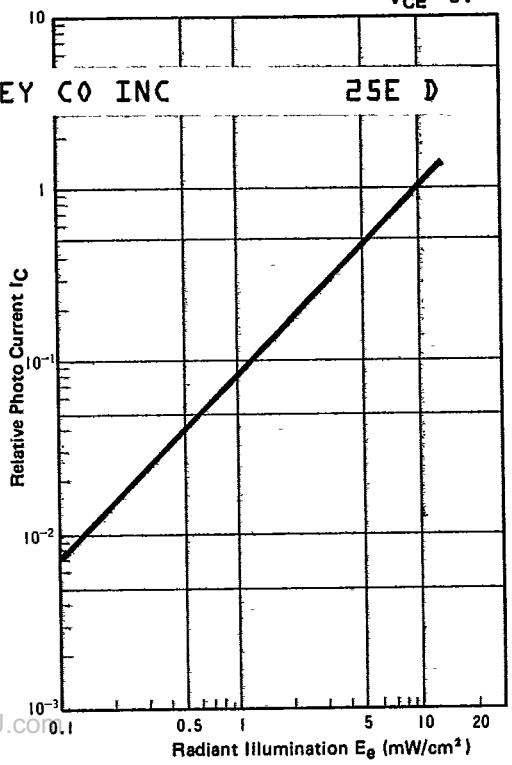
Item	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-Emitter Dark Current	I_{CEO}	—	—	0.2	μA	$V_{CE} = 10\text{V}, E_e = 0$
Photo current	I_c	0.5	2.5	—	mA	$V_{CE} = 5\text{V}, *E_e = 10\text{mW/cm}^2$
Response Time	Rise	t_r	5	—	μSEC	$V_{CC} = 10\text{V}$ $I_c = 2\text{mA}, R_L = 100\Omega$
	Fall	t_f	5	—	μSEC	
Peak Sensitivity Wavelength	λ_p	—	800	—	nm	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	—	0.1	—	V	$I_c = 0.5\text{mA}, *E_e = 10\text{mW/cm}^2$

■ Directivity Characteristics



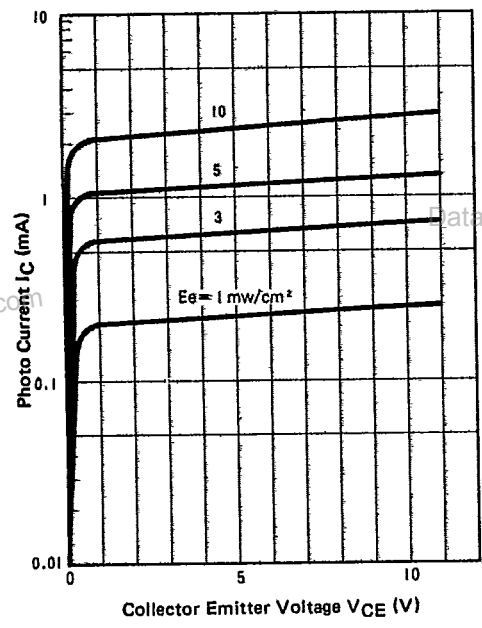
■ Relative Photo Current Vs. Radiant Illumination

$V_{CE} = 5V$

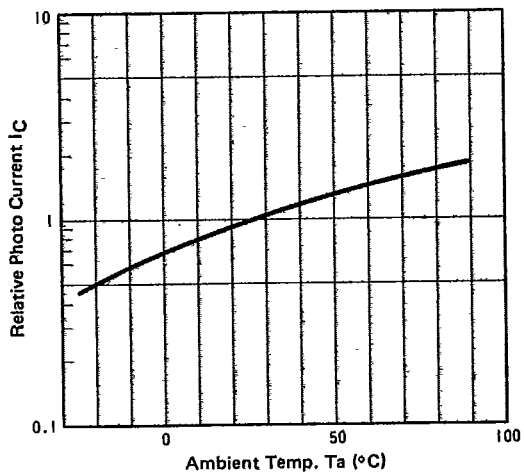


■ Photo Current Vs. Collector Emitter Voltage

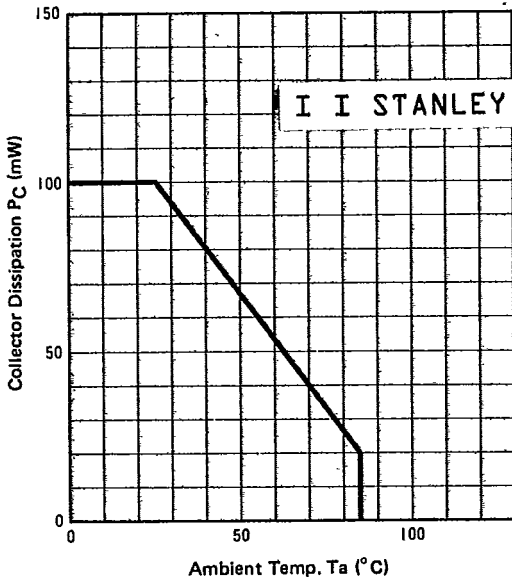
$T_a = 25^\circ C$



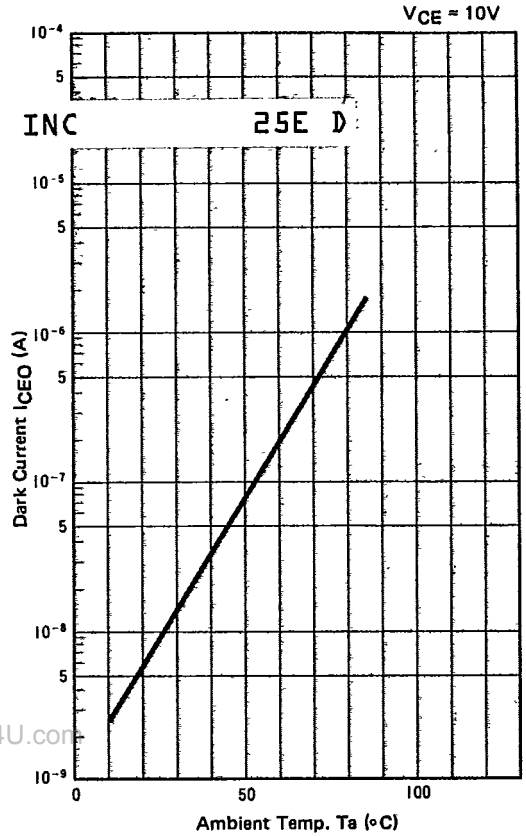
■ Photo Current Vs. Ambient Temp.



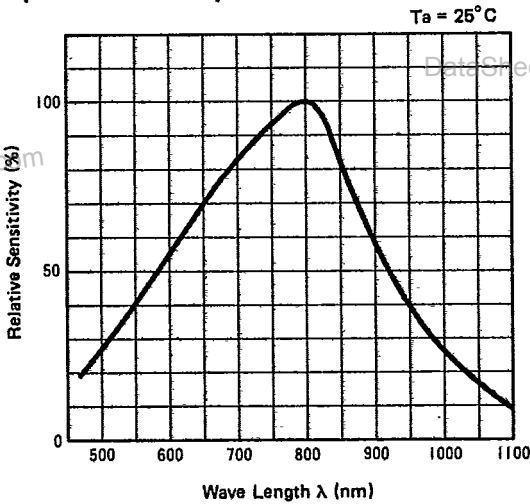
Collector Dissipation Vs. Ambient Temp.



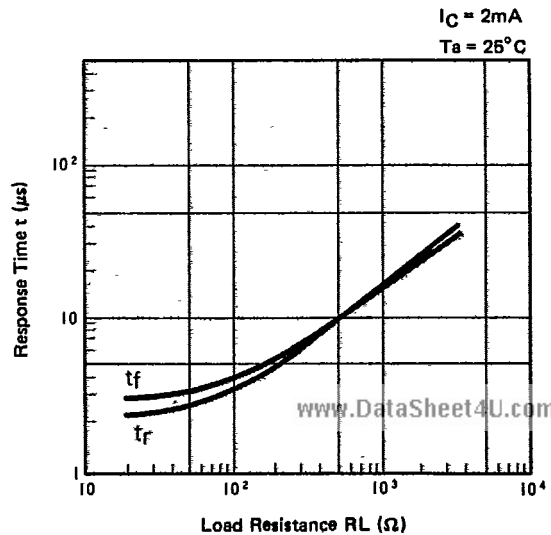
Dark Current Vs. Ambient Temp.



Spectral Sensitivity Characteristics



Response Time Vs. Load Resistance



Response Time Measuring Circuit

