

ST - 325

The ST-325 is a high-sensitivity NPN silicon phototransistor mounted in a red low profile side-viewing package. This phototransistor is both ultra-compact and easy to mount.

FEATURES

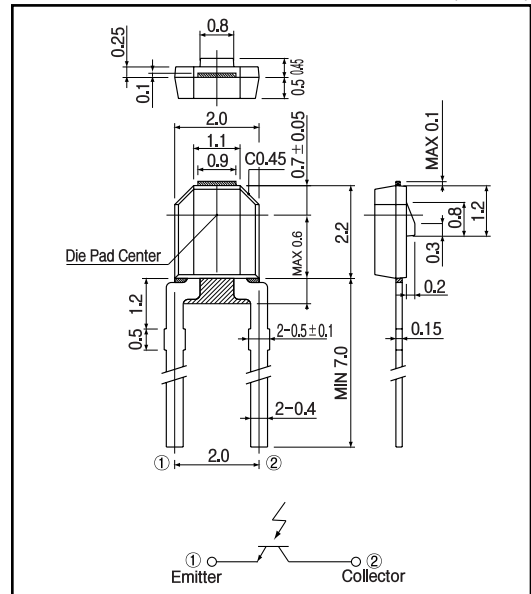
- Side-viewing plastic package
- Ultra-Compact / Low-profile package

APPLICATIONS

- Photointerrupters
- Tape-end sensors
- Optical switches

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta=25 °C)

Item	Symbol	Rating	Unit
C - E voltage	V_{CE0}	30	V
E - C voltage	V_{ECO}	5	V
Collector current	I_C	20	mA
Collector power dissipation	P_C	75	mW
Operating temp.	$T_{opr.}$	- 25 ~ + 85	
Storage Temp.	$T_{stg.}$	- 30 ~ + 85	
Soldering temp. ^{*1}	$T_{sol.}$	260	

*1. For MAX. 5 seconds at the position of 2 mm from the package

ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25 °C)

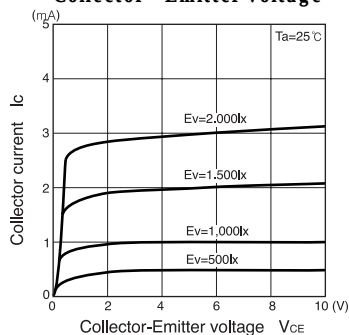
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Collector dark current	I_{CEO}	$V_{CE0} = 10V$			100	nA
Light current	I_L	$V_{CE} = 5V, E = 1000lx^{-2}$	0.4			mA
C - E saturation voltage	$V_{CE(sat)}$	$I_C = 0.5mA, E = 2000lx^{-2}$		0.2	0.4	V
Switching speeds	Rise time	$V_{CC} = 10V, I_L = 1mA, R_L = 100\Omega$		3.2		$\mu sec.$
	Fall time			4.8		$\mu sec.$
Spectral sensitivity	λ			500 ~ 1,050		nm
Peak wavelength	λ_p			880		nm
Half angle	θ			± 60		deg.

*2. Color temp. = 2856K standard Tungsten lamp

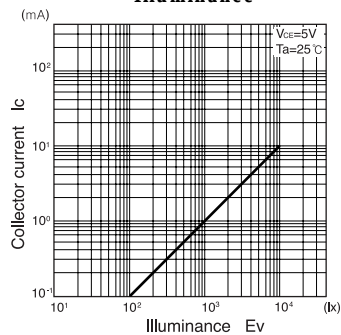
Photo transistors

ST - 325

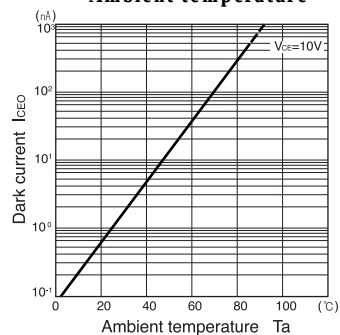
**Collector current Vs.
Collector - Emitter voltage**



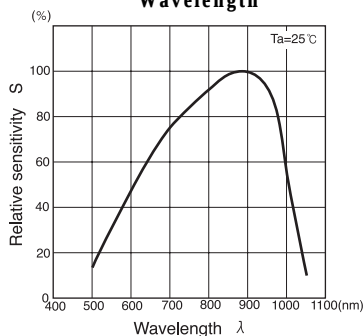
**Collector current Vs.
Illuminance**



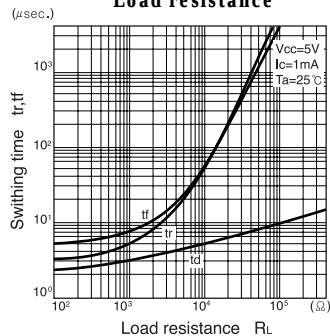
**Dark current Vs.
Ambient temperature**



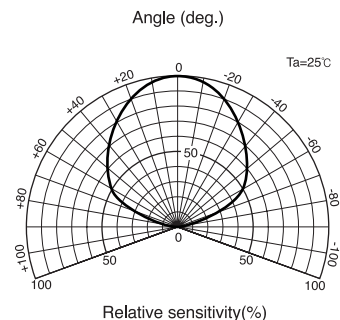
**Relative sensitivity Vs.
Wavelength**



**Switching time vs.
Load resistance**



Radiant Pattern



**Collector power dissipation Vs.
Ambient temperature**

