

Photo transistors

KODENSHI

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

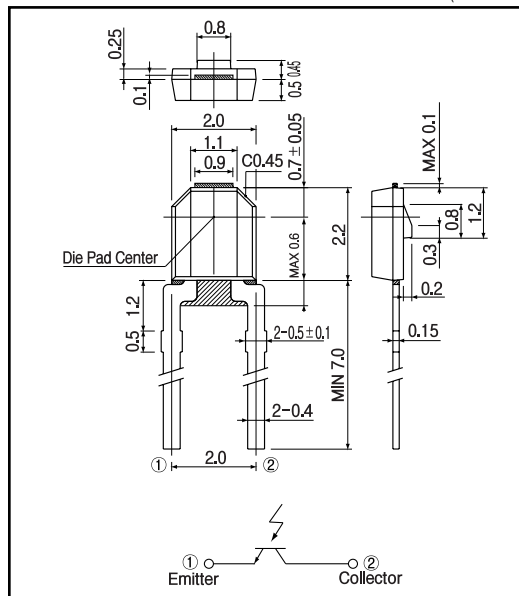
- Side-viewing plastic package
- Ultra-Compact / Low-profile package

APPLICATIONS

- Photointerrupters
- Tape-end sensors
- Optical switches

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta=25)

Item	Symbol	Rating	Unit
C - E voltage	V _{CE0}	30	V
E - C voltage	V _{E0}	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)

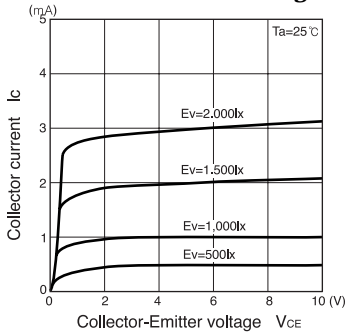
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Collector dark current	I _{CE0}	V _{CE0} =10V			100	nA
Light current	I _L	V _{CE} =5V, E _v =1000lx ⁻²	0.4			mA
C - E saturation voltage	V _{CE(sat)}	I _c =0.5mA, E _v =2000lx ⁻²		0.2	0.4	V
Switching speeds	Rise time	V _{cc} =10V, I _c =1mA, R _L =100		3.2		μsec.
	Fall time			4.8		μsec.
Spectral sensitivity			500 ~ 1,050			nm
Peak wavelength	λ _p			880		nm
Half angle				± 60		deg.

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

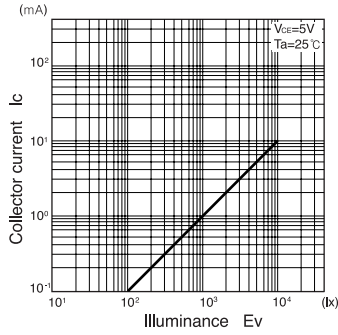
Photo transistors

ST - 325

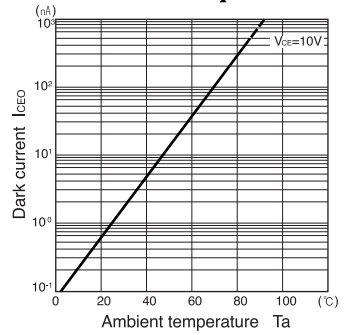
Collector current Vs. Collector - Emitter voltage



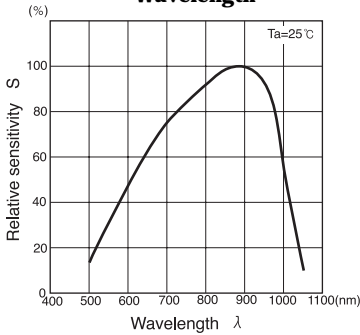
Collector current Vs. Illuminance



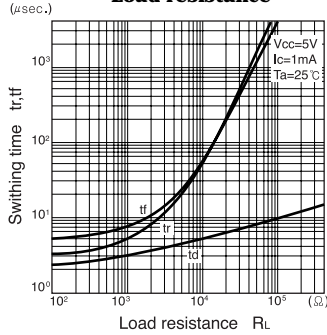
Dark current Vs. Ambient temperature



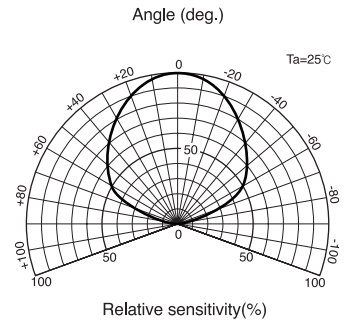
Relative sensitivity Vs. Wavelength



Switching time vs. Load resistance



Radiant Pattern



Collector power dissipation Vs. Ambient temperature

