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.

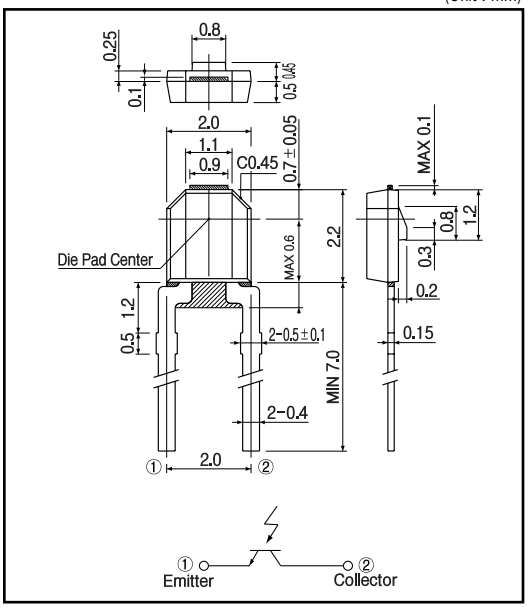
FEATURES

- Side – viewering 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_{CEO}	30	V
E - C voltage	V_{ECO}	5	V
Collector current	I_C	20	mA
Collector power dissipation	P_C	75	mW
Operating temp.	Topr.	- 25 ~ + 85	℃
Storage Temp.	Tstg.	- 30 ~ + 85	℃
Soldering temp. *1	Tsol.	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_{CEO}	V_{CEO}=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	tr	V_{CC}=10V, I_C=1mA, R_L=100Ω		3.2		μsec.
	Fall time	tf			4.8		μsec.
Spectral sensitivity		λ			500~1,050		nm
Peak wavelength		λp			880		nm
Half angle		△θ			±60		deg.

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

Photo transistors

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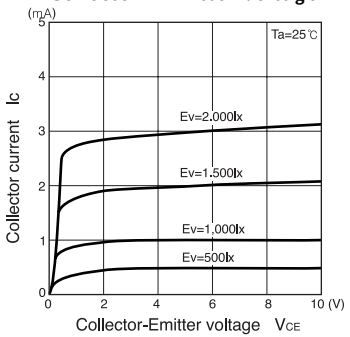
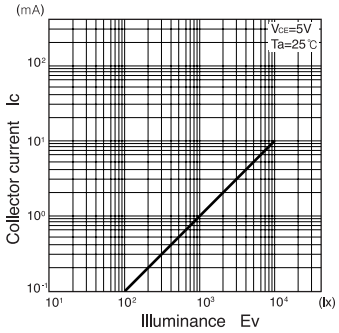
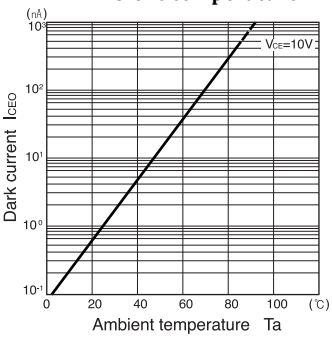
Collector current Vs. Collector - Emitter voltage



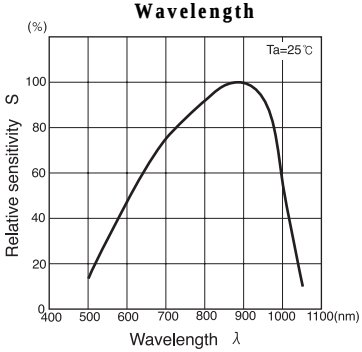
Collector current Vs. Illuminance



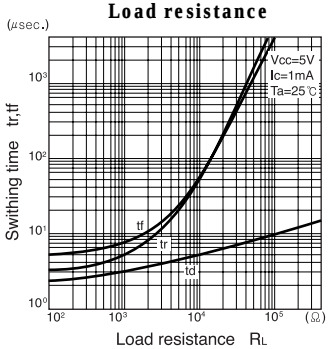
Dark current Vs. Ambient temperature



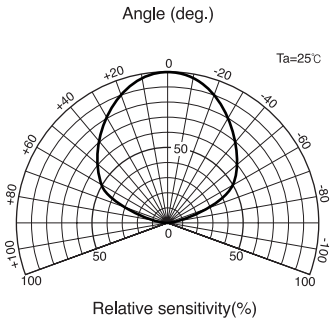
Relative sensitivity Vs. Wavelength



Swithing time vs. Load resistance



Radiant Pattern



Collector power dissipation Vs. Ambient temperature