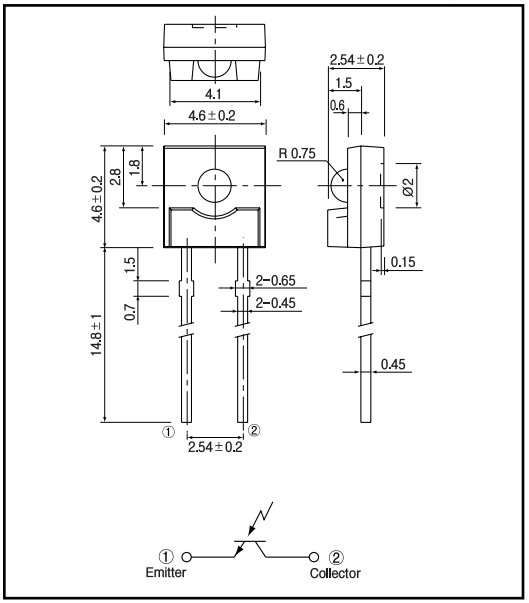
ST - 23G

The ST - 23G, a high - sensitivity NPN silicon phototransistor mounted in a clear sidelooking package, is compact, low profile and easy to mount.

DIMENSIONS (Unit : mm)



FEATURES

- Low profile package
- Compact
- Low - cost
- Sidelooking plastic package

APPLICATIONS

- Photointerrupters
- Optical switches

MAXIMUM RATINGS

(Ta=25℃)

Item	Symbol	Rating	Unit
C - E voltage	V_{CEO}	30	V
E - C voltage	V_{ECO}	6	V
Collector current	I_C	40	mA
Collector power dissipation	P_C	100	mW
Operating temp.	Topr.	- 20~ +100	℃
Storage Temp.	Tstg.	- 30~ +100	℃
Soldering temp. *1	Tsol.	260	℃

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

ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25℃)

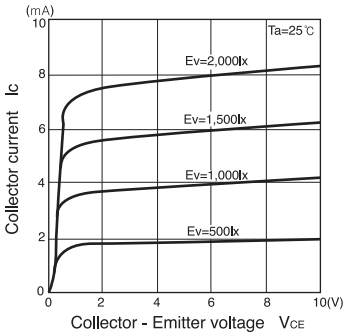
Item		Symbol	Conditions	Min.	Typ.	Max.	Unit.
Collector dark current		I_{CEO}	V_{CEO}=10V		1	100	nA
Light current		I_L	V_{CE}=5V, 1,000lx *2	0.5	4.0	20	mA
C - E saturation voltage		V_{CE}(sat)	I_C=0.5mA, 2,000lx *2		0.2	0.4	V
Switching speeds	Rise time	tr	V_{CC}=10V, I_C=5mA, R_L=100Ω		3.2		μsec.
	Fall time	tf			4.8		μsec.
Spectral sensitivity		λ		500~1,050			nm
Peak wavelength		λp			880		nm
Half anglee		△θ			±30		deg.

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

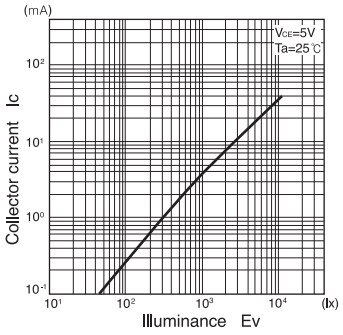
Photo transistors

ST - 23G

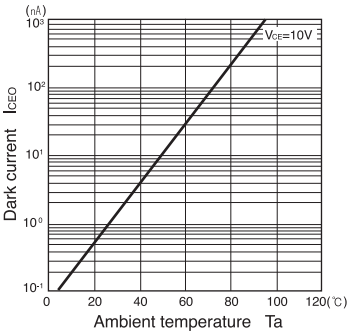
Collector current Vs. Collector - Emitter voltage



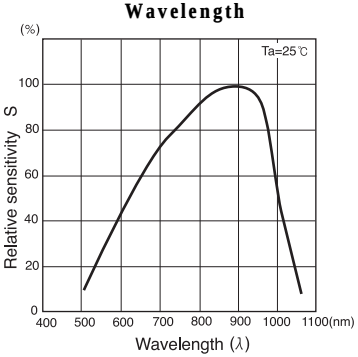
Collector current Vs. Illuminance



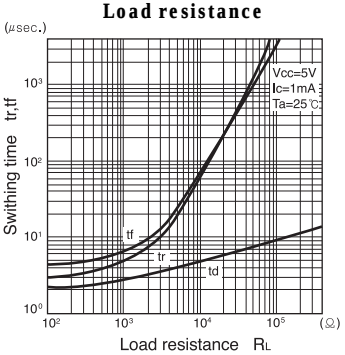
Dark current Vs. Ambient temperature



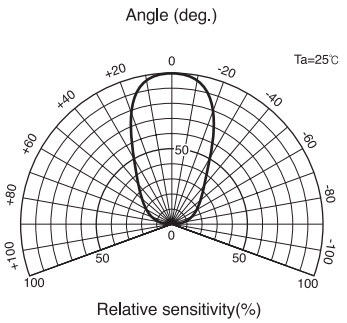
Relative sensitivity Vs. Wavelength



Swithing time vs. Load resistance



Radiant Pattern



Collector power dissipation Vs. Ambient temperature