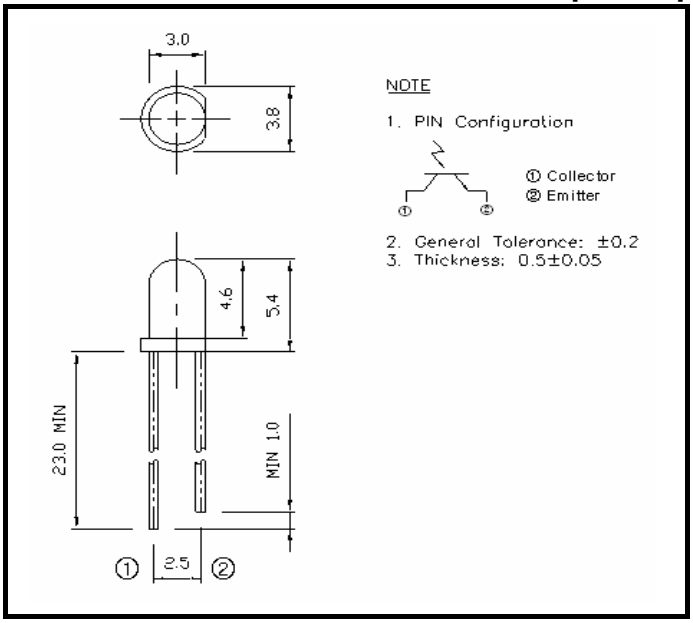
Silicon photo transistor

KODENSHI

KDT3002A

The KDT3002A is high sensitivity NPN silicon photo transistor mounted in Φ3mm(T-1) all plastic mold type. This photo transistor is both compact and easy to mount.

Dimensions [Unit : mm]



Features

- Higly sensitive photo transistor
- Visable ray cut off mold type

Applications

- VCR, Camcoders
- Floppy disk drivers
- Optical detectors/switch

Absolute Maximum Ratings

[T_A = 25℃]

Parameter	Symbol	Rating	Unit
Collector-Emitter Voltage	V_{CEO}	35	V
Emitter-Collector Voltage	V_{ECO}	6	V
Collector Current	I_C	20	mA
Collector Power Dissipation	P_C	75	mW
Operating Temperature	Topr.	-20~+85	℃
Storage Temperature	Tstg.	-30~+85	℃
Soldering Temperature*1	Tsol	240	℃

Notes : 1. For MAX. 5 seconds at the position of 3 mm from the package.

ELECTRO- OPTICAL CHARACTERISTICS

Description	Symbol	Condition	Min.	Typ.	Max.	Unit
Dark Current	I_{CEO}	V_{CE}=10V, E_E=0	-	-	200	nA
Light Current	I_{CEL}	V_{CE}=10V, Ev=500lx ※1	2.5	5.0	-	mA
Spectral Sensitivity	λ	-	700~1050			nm
Peek wavelength	λp	V_R=0V	-	880	-	nm
Viewing Angle	Δθ	-	-	±30	-	deg.
Response Time(Rise Time)	tr	V_{CC}=10V, Ic=1mA	-	2.5	-	μs
Response Time(Fall Time)	tf	λL=100Ω	-	4.7	-	μs

※1 Color temp. =2856K Standard Tungsten lamp

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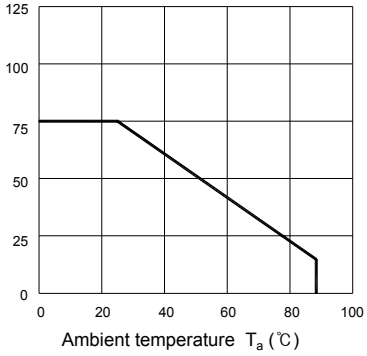
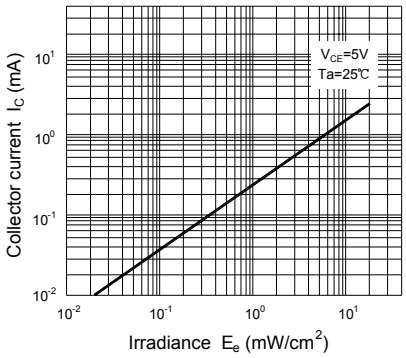
DYNAMIC CHARACTERISTICS

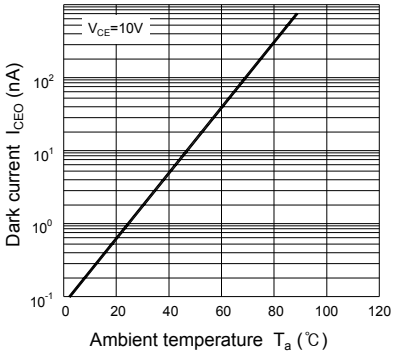
Power dissipation Vs. Ambient temperature



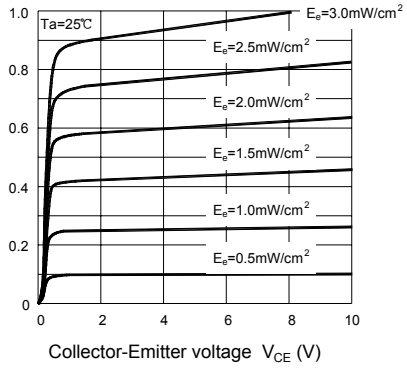
Collector current Vs. Irradiance



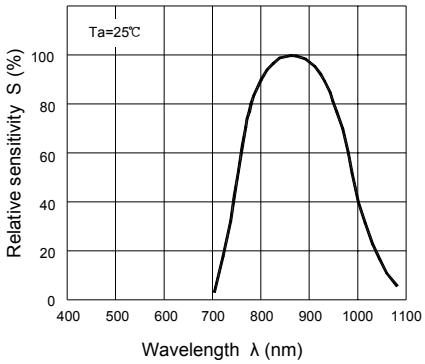
Dark current Vs. Ambient temperature



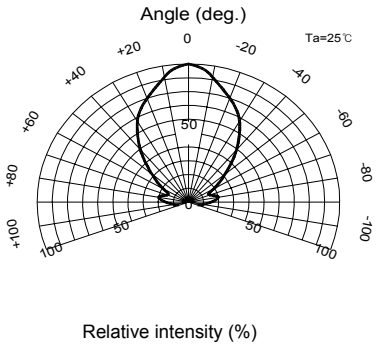
Collector current Vs. Collector-Emitter voltage



Relative sensitivity Vs. Wavelength



Radiant pattern



Response time Vs. Load resistance