

Photo Transistor

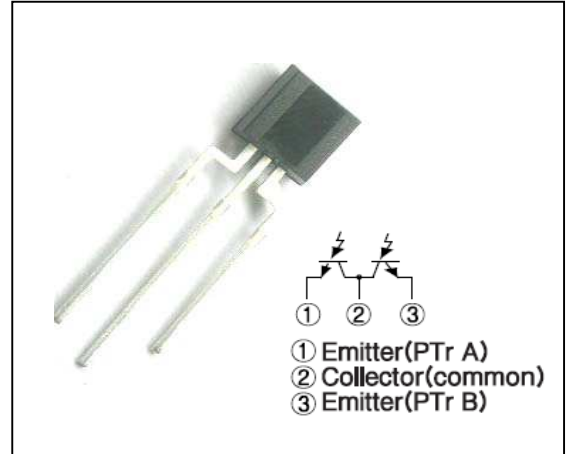
KST-312

Description

The KST-312 is a high-sensitivity silicon phototransistor with two-phase output. this phototransistor is compact, and the best for the mouse.

Features

- Thickness : 3mm
- Visible light cut-off type
- Built-in 2ch phototransistor



Applications

- Optical mouses
- Encoders

Absolute Maximum Ratings [T_A = 25°C]

Parameter	Symbol	Min.	Max.	Max.
Collector-Emitter Voltage	V _{CEO}	-	30	V
Emitter-Collector Voltage	V _{ECO}	-	5	V
Collector Current	I _C	-	-	mA
Collector Power Dissipation	P _C	-	100	mW
Operating Temperature	T _{opr.}	-25	85	°C
Storage Temperature	T _{stg.}	-30	85	°C
Soldering Temperature*1	T _{sol}	-	260	°C

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

The contents of this data sheet are subject to change without advance notice for the purpose of improvement. When using this product, would you please refer to the latest specifications.

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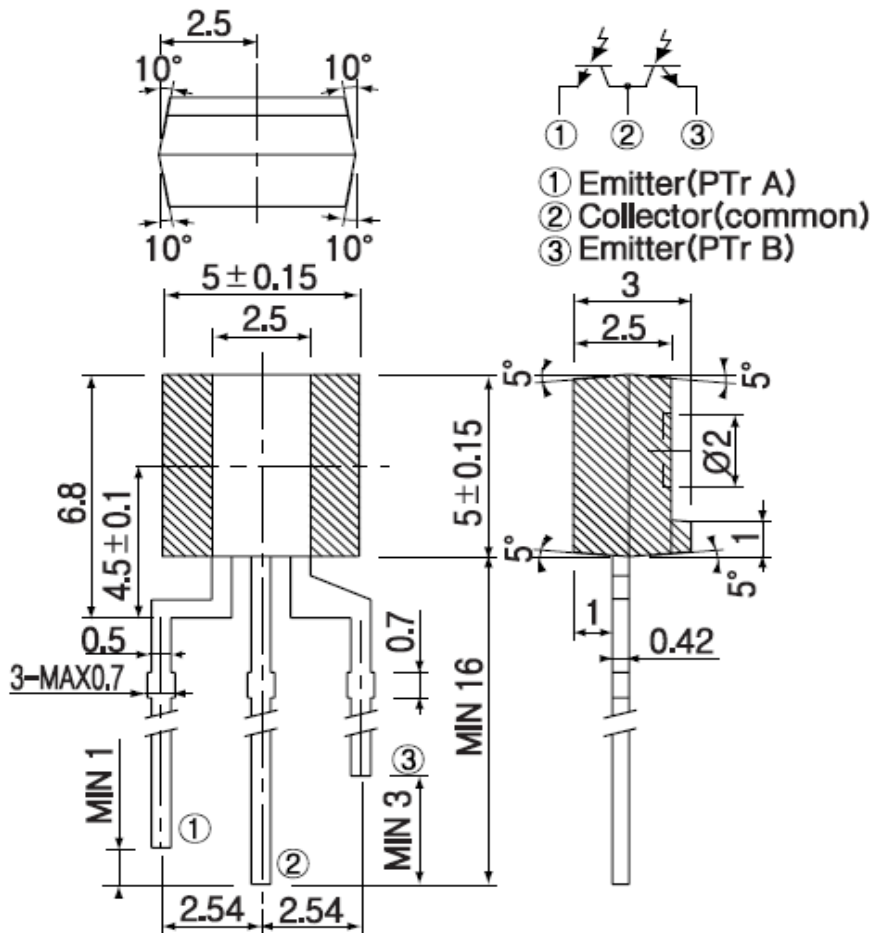
Electrical Characteristics

[T_A = 25°C]

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Dark Current	I _{CEO}	E _v =0, V _{CE} =10V	-	-	100	nA
Collector Current	I _{CEL}	E _e =1mW/cm ² , V _{CE} =5V	160	-	960	μA
Collector-Emitter Saturation Voltage	V _{CE(SAT)}	I _C =100μA	-	0.1	0.4	V
Spectral Sensitivity	λ	-	880	-	1050	nm
Peak Sensitivity Wavelength	λ _P	-	-	960	-	nm
Collector-Emitter Breakdown Voltage	BV _{CEO}	E _v =0, I _{CE} =0.1mA	35	-	-	V
Emitter-Collector Breakdown Voltage	BV _{ECO}	E _v =0, I _{EC} =0.01mA	6	-	-	V
Switching time	Rise time	V _{CE} =5V, I _C =1mA, R _L =1kΩ	-	15.0	-	μs
	Fall time		-	18.0	-	μs
Half Angle	Δθ	-	-	±60	-	deg

Package Outline Dimensions

(Unit : mm)



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