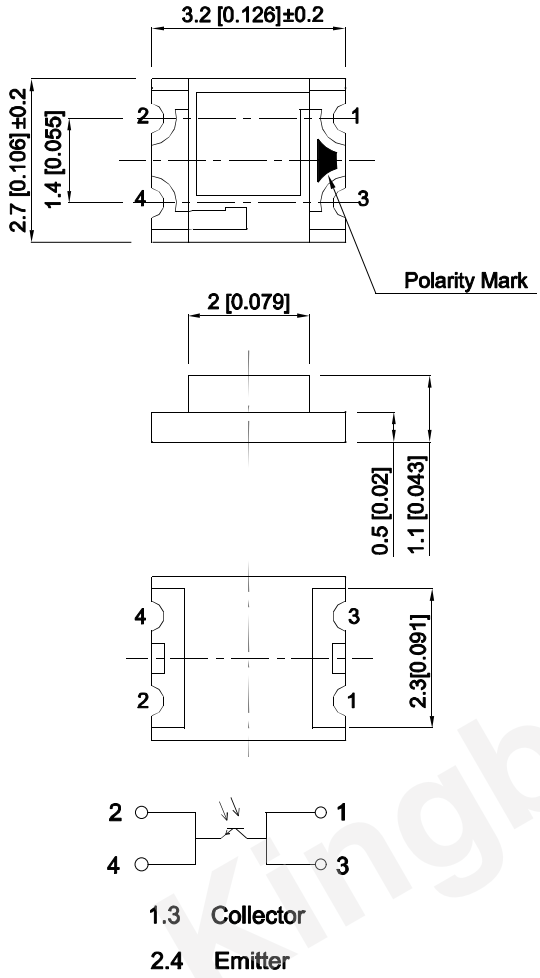
Package Dimensions



Part Number: KPS-3227SP1C

Description

The KPS-3227SP1C is a NPN silicon phototransistor, It is a good effective solution to the power saving of display backlighting appliances and the device is sensitive to the visible spectrum.

Features

*Lead-free package.

*Component in accordance with RoHS.

*Adapted to human eye responsive.

*Wide angle of half sensitivity.

*Moisture sensitivity level : level 3.

* Package:2000 pcs/ Reel.

Applications

Detection of ambient light to control display backlighting in:

*Mobile phones

*PDAs

*Note books

*Video cameras

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.1 (0.004") unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

*Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit	Notice
Collector Emitter Voltage	V_{ceo}	60	V	Iceo=100μA
Emitter-Collector Voltage	V_{eco}	4	V	Ieco=100μA
Operating Temperature	Topr	-40 to +85	°C	-
Storage Temperature	Tstg	-40 to +85	°C	-

Note:

1. Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity – Ref JEDEC/JESD625-A and JEDEC/J-STD-033.

*Electrical and Optical Characteristics (Ta=25°C)

Parameter	Symbol	Value			Unit	Conditions
		Min.	TYP.	Max.		
Collector Emitter Breakdown Voltage	BVceo	60	-	-	V	Iceo=100μA
Emitter Collector Breakdown Voltage	BVeco	4	-	-	V	Ieco=100μA
Collector dark current	I_D	-	10	100	nA	V_{CE}=5V E_V=0Lx
Light Current(1)	I_{PH1}	-	6	-	μA	V_{CE}=5V,Ev=100 Lx[1]
Light Current(2)	I_{PH2}	-	130	-	μA	V_{CE}=5V,Ev=1000 Lx[1]
Light Current(3)	I_{PH3}	-	950	-	μA	V_{CE}=5V,Ev=1000 Lx[2]
Light Current(4)	I_{PH4}	-	420	-	μA	V_{CE}=5V,Ev=1000 Lx[3]
Saturation Output Voltage	Vo	4.5	4.7	-	V	V_{CC}=5V,E_V=1000Lx[1], R_L=75KΩ
Peak Wavelength	λP	-	580	-	nm	-
Response Wavelength	λ	390	-	700	nm	>10% Response
Collector Emitter Saturation Voltage	$V_{CE\ (sat)}$	-	-	0.4	V	I_C=10 mA

Notes:
1. White Fluorescent light (Color Temperature = 6200K) is used as light source.
2. Luminance by CIE standard illuminant-A/2856K,incandescet lamp.
3. Sunlight (Color Temperature = 4600K) is used as light source.
4. Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Fig.1 Illuminance vs. Output Phtocurrent

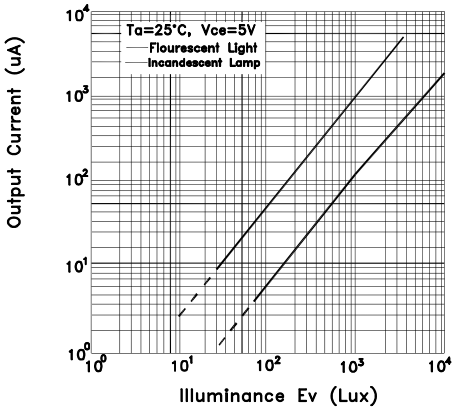


Fig.2 Relative Spectral Responsivity vs. Wavelength