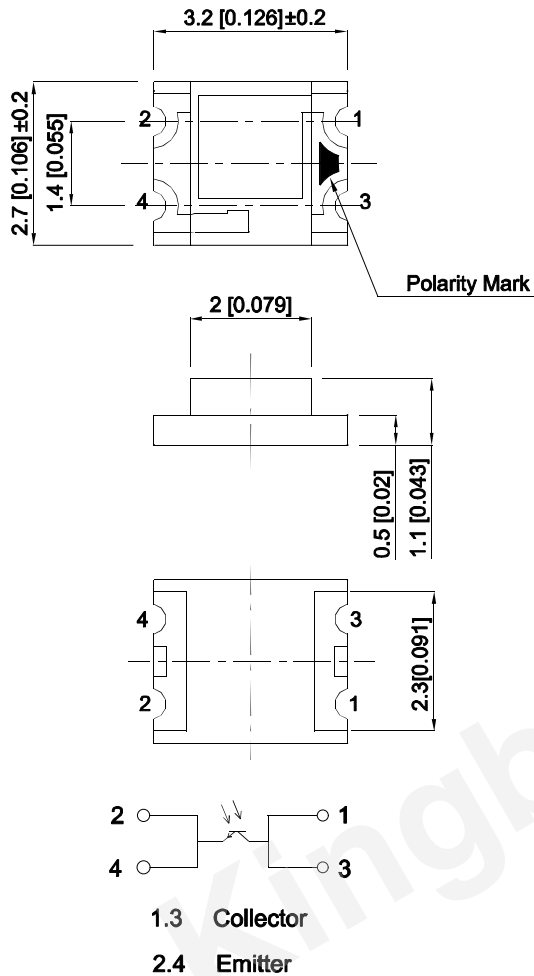


Package Dimensions



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_{ce0}	60	V	$I_{ce0}=100\mu A$
Emitter-Collector Voltage	V_{eco}	4	V	$I_{eco}=100\mu A$
Operating Temperature	T_{opr}	-40 to +85	°C	-
Storage Temperature	T_{stg}	-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	I _{ceo} =100μA
Emitter Collector Breakdown Voltage	BVeco	4	-	-	V	I _{eco} =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, E _V =100 Lx ^[1]
Light Current(2)	I _{PH2}	-	130	-	μA	V _{CE} =5V, E _V =1000 Lx ^[1]
Light Current(3)	I _{PH3}	-	950	-	μA	V _{CE} =5V, E _V =1000 Lx ^[2]
Light Current(4)	I _{PH4}	-	420	-	μA	V _{CE} =5V, E _V =1000 Lx ^[3]
Saturation Output Voltage	V _O	4.5	4.7	-	V	V _{CC} =5V, E _V =1000Lx ^[1] , R _L =75KΩ
Peak Wavelength	λ _P	-	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, incandescence 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 Photocurrent

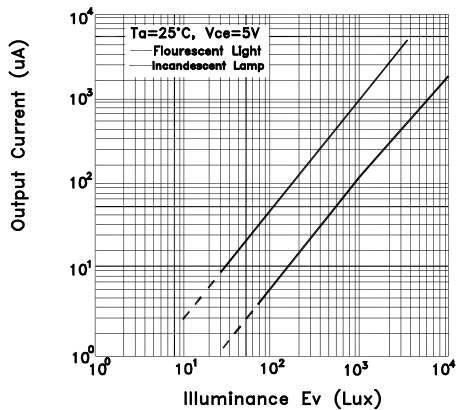


Fig.2 Relative Spectral Responsivity vs. Wavelength

