

# SUNRISE LED

## TECHNOLOGY DATA SHEET & SPECIFICATIONS

MODEL  $\square$  3201-BD

### Features

- ' Fast response time
- ' High photo sensitivity
- ' Small junction capacitance
- ' Pb free

### Descriptions

3201-BD is a high speed and high sensitive PIN photodiode in a standard 3 $\square$  plastic package. The device is matched to infrared emitting diode.



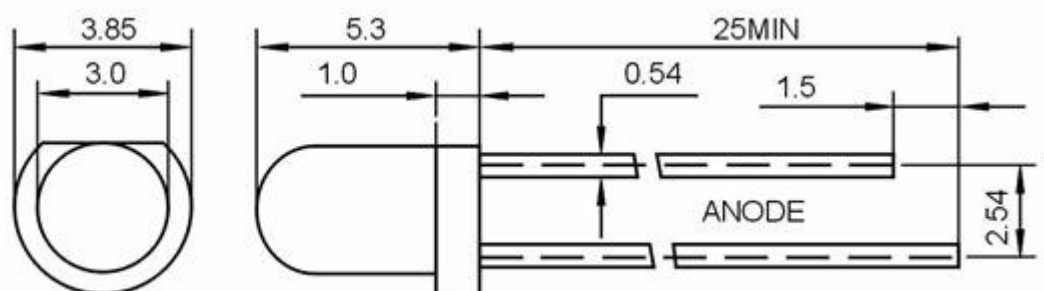
### Applications

- Automatic door sensor
- Copier
- Game machine

### Device Selection Guide

LED Part No.	Chip	Lens Color
	Material	
3201-BD	Silicon	Black

### Package Dimensions



UNIT:mm

# SUNRISE LED

## TECHNOLOGY DATA SHEET & SPECIFICATIONS

MODEL  $\square$  3201-BD

### Notes:

- 1.All dimensions are in millimeters
- 2.Tolerances unless dimensions  $\pm 0.1\text{mm}$

### Absolute Maximum Rating ( $T_a=25\square$ )

Parameter	Symbol	Absolute Maximum Rating	Unit
Reverse Voltage	$V_R$	30	V
Power Dissipation	$P_D$	100	mW
Operating Temperature	$T_{opr}$	-25 $\square$ +85	$\square$
Storage Temperature	$T_{stg}$	-40 $\square$ +85	$\square$
Soldering Heat (5s)	$T_{sol}$	260	$\square$

Notes: \*1:Soldering time  $\square$  5 seconds.

### Electro-Optical Characteristics ( $T_a=25\square$ )

Parameter	Symbol	Min.	TYP.	Max.	Unit	Condition
Collector-Emitter Breakdown Voltage	$V_{BR\ CEO}$	30	---	---	V	$I_C=100\mu A$ $I_B=0$
Collector-Emitter Breakdown Voltage	$V_{BR\ ECO}$	5	---	---	V	$I_E=100\mu A$

# SUNRISE LED

## TECHNOLOGY DATA SHEET & SPECIFICATIONS

**MODEL 3201-BD**

						$I_B=0$
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	---	---	0.4	V	$I_C=0.1mA$ $H=2.5mW/cm^2$
Collector Dark Current	$I_D$	---	---	100	nA	$V_{CE}=10V$ $H=0mW/cm^2$
Rise Time (10% to 90%)	$T_R$	---	15	---	$\mu s$	$V_{CE}=5V$ $I_C=1mA$
Fall Time (90% to 10%)	$T_F$	---	15	---	$\mu s$	$R_L=100\Omega$
On State Collector Current	$I_{(ON)}$	---	4	---	mA	$V_{CE}=5V$ $E_e=1mW/cm^2$ $\lambda=940nm$
Angular Response	$\theta$	---	$\pm 6$	---	Deg	