



**MODEL 產品型號 : XL-PT523B**

### **Features**

Fast response time

High linearity

High photo sensitivity

Available in groups

Pb free

The product itself will remain within RoHS compliant version

### **Descriptions**

XL-PT523B is a high speed and high sensitive NPN silicon phototransistor molded in a standard  $\Phi 3\text{mm}$  package.

Due to is black epoxy the device is sensitive to visible and infrared radiation.

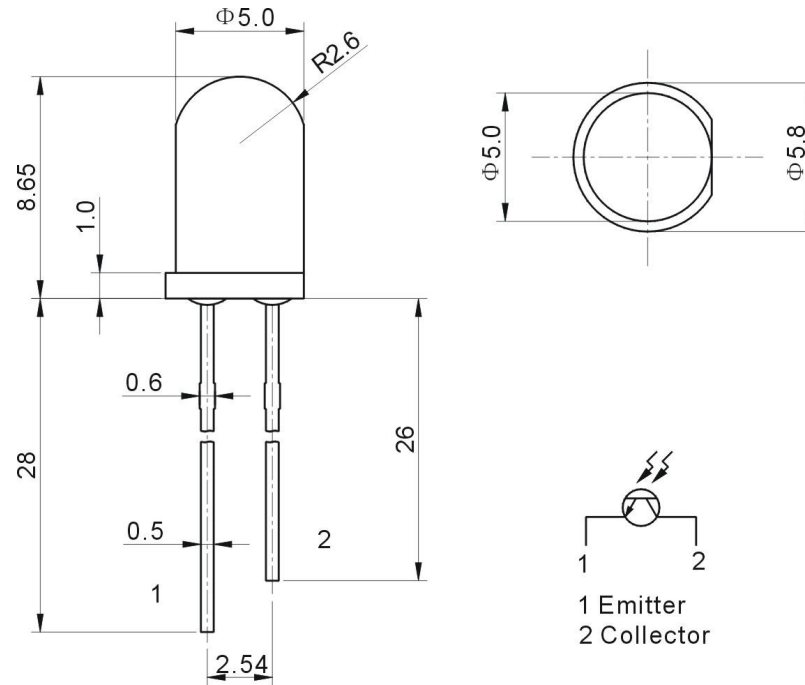
### **Applications**

Infrared applied system      Optoelectronic switch      Camera      Printer

Photo interrupters      Industrial electronics      For control and drive circuits

## MODEL 產品型號 : XL-PT523B

### Package Dimension



NOTE:TOLERANCE $\pm 0.5$ mm

#### Notes:

All dimensions are in millimeters.

Tolerances unless dimensions  $\pm 0.25$ mm

Lead spacing is measure where the lead emerge from the package.

**MODEL 產品型號：XL-PT523B****Absolute Maximum Ratings at Ta=25℃**

Parameter	Symbol	Rating	Unit
Power Dissipation at (or below) 25℃ Free Air Temperature	P <sub>c</sub>	75	<u>mW</u>
Collector-Emitter Voltage	V <sub>CEO</sub>	100	V
Emitter-Collector Voltage	V <sub>ECO</sub>	7	V
Operating Temperature	<u>T<sub>opr</sub></u>	-25~+85	℃
Storage Temperature	<u>T<sub>stg</sub></u>	-40~+85	℃
Soldering Temperature (1/16 inch from body for 5 seconds)	<u>T<sub>sol</sub></u>	260	℃

**MODEL 產品型號：XL-PT523B****Electrical Optical Characteristics**

Parameter		Symbol	Min.	Typ.	Max.	Unit	Condition
Collector-Emitter Leakage Current		$I_{CEO}$			100	nA	$V_{CE}=10V$
Emitter -Collector Saturation Voltage		$V_{CE(Sat)}$			300	mV	$I_c=5mA / I_b=1mA$
Wavelength Of Peak Sensitivity		$\lambda_p$		940		nm	
Rang Of Spectral Bandwidth		$\lambda_{0.5}$	1000		1800	nm	
Collector-Emitter Breakdown Voltage		$BV_{CEO}$	40			V	$I_{EC}=500 \mu A$
C-B Breakdown Voltage		$BV_{CBO}$	50				$I_{CB}=50 \mu A$
E-B Breakdown Voltage		$BV_{EBO}$	6				$I_{EB}=50 \mu A$
Emitter -Collector Breakdown Voltage		$BV_{ECO}$	6.5			V	$I_{EC}=50 \mu A$
Response Time	Rise Time	$t_r$		10		$\mu S$	$V_{CE}=5V, I_c=1mA$ $R_L=1000 \Omega$
	Fall Time	$t_f$		10		$\mu S$	

**MODEL 產品型號: XL-PT523B**

**Typical Electrical-Optical Characteristics Curves**

