

**MODEL** 產品型號：XL-PT324B



### **Features**

Fast response time

High photo sensitivity

Pb free

The product itself will remain within RoHS compliant version

### **Descriptions**

XL-PT324B 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

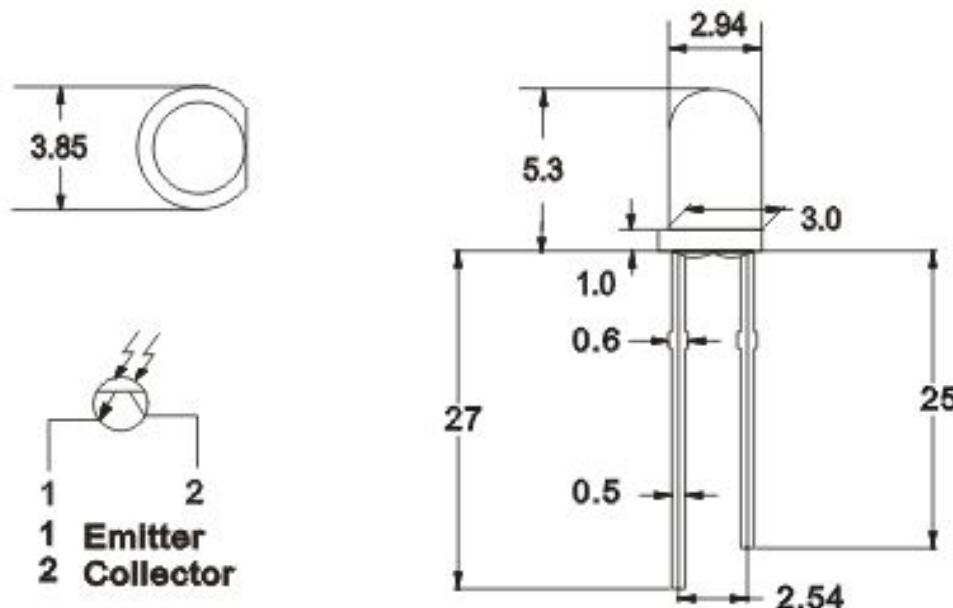
Optoelectronic switch

Camera

Printer

**MODEL 產品型號 : XL-PT324B**

**Package Dimension**



**NOTE: TOLERANCE  $\pm 0.5\text{mm}$**

Notes:

All dimensions are in millimeters.

Tolerances unless dimensions  $\pm 0.25\text{mm}$

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

**MODEL 產品型號 : XL-PT324B**

**Absolute Maximum Ratings at Ta=25°C**

Parameter	Symbol	Rating	Unit
Power Dissipation at (or below) 25°C Free Air Temperature	P <sub>c</sub>	75	mW
Collector-Emitter Voltage	V <sub>CEO</sub>	30	V
Emitter-Collector Voltage	V <sub>ECO</sub>	5	V
Collector Current	I <sub>c</sub>	20	mA
Operating Temperature	T <sub>opr</sub>	-25~+85	°C
Storage Temperature	T <sub>stg</sub>	-40~+85	°C
Soldering Temperature(1/16 inch from body for 5 seconds)	T <sub>sol</sub>	260	°C

**MODEL 產品型號 : XL-PT324B**

**Electrical Optical Characteristics**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Collector Dark Current	$I_{CEO}$			100	nA	$V_{CE}=20V$ $H=0mw/cm^2$
On State Collector Current	$I_C(on)$	0.7	2.0			$H=1mW/cm^2$ $V_{CE}=5V$
Emitter-Collector Breakdown Voltage	$BV_{CEO}$	30		100	V	$I_C=100\mu A$ $I_B=0$
Collector - Emitter Breakdown Voltage	$BV_{ECO}$	6.5			V	$I_C=100\mu A$ $I_B=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.2	V	$I_C=2mA$ $I_B=100uA$
Current gain	$h_{FE}$	1000		1800	$\mu A$	$V_{CE}=5V$ $I_C=2mA$
Wavelength of Peak Sensitivity	$\lambda_p$		940		nm	
Range of Spectral Bandwidth	$\lambda_{0.5}$	700		1100	nm	
Response Time	Rise Time	tr		15	$\mu S$	$V_{CE}=5V$ $I_C=1mA$ $R_L=1000\Omega$
	Fall Time	tf		15	$\mu S$	
Half sensitivity angle	$\Delta\lambda$		$\pm 15$		deg	
Collector-Capacitance	$C_{CB}$	5.4	6.4	7.4	$P_F$	$F=1MHz, V_{CB}=3V$

# MODEL 產品型號: XL-PT324B

## Typical Electrical-Optical Characteristics Curves

