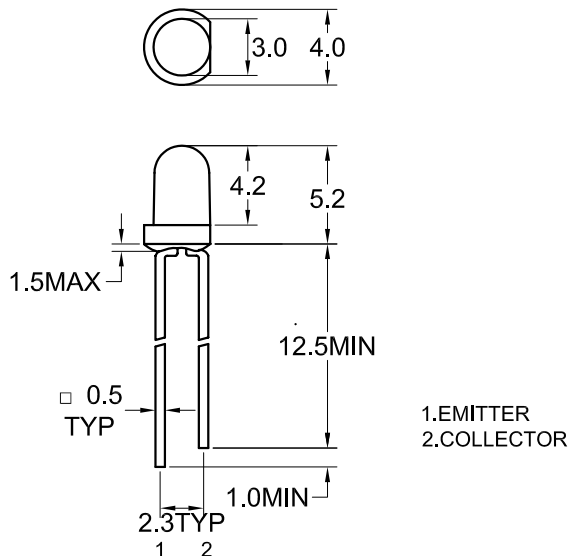


**LIGITEK**

NPN SILICON PHOTOTRANSISTOR LED LAMPS

LPT2021**SERIES****Package Dimension****Features**

- High illumination sensitivity
- Stable characteristics
- Spectrally and mechanically matched with IR emitter

Description

The LPT2021 series are silicon nitride passivated NPN planar phototransistors with exceptionally stable characteristics and high illumination sensitivity the cases of LPT2021 are encapsulated in transparent plastic T1 package individualt

Note: 1. All dimension are in millimeter tolerance is $\pm 0.25\text{mm}$ unless otherwise noted
2. Specifications are subject to change without notice

• MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

PARAMETER	MAXIMUM RATINGS	UNIT
Power Dissipation	100	mw
Collector-Emitter Voltage	30	V
Emitter-Collector Voltage	5	V
Operating Temperature	-50°C TO $+100^\circ\text{C}$	
Storage Temperature	-50°C TO $+100^\circ\text{C}$	
Lead Soldering Temperature(1.6mm From Body)	260 $^\circ\text{C}$ for 5 seconds	

• ELECTRICAL CHARACTERISTICS($T_a=25^\circ\text{C}$)

PARAMETER	SYMBOL	Min.	Typ.	Max.	UNIT	TEST CONDITION
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	30			V	$I_c=1\text{mA}$ $E_e=0\text{mw}/\text{cm}^2$
Emitter-Collector Breakdown Voltage	$V_{(BR)ECO}$	5			V	$I_E=100\mu\text{A}$ $E_e=0\text{mw}/\text{cm}^2$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.4	V	$I_c=0.5\text{mA}$ $E_e=20\text{mw}/\text{cm}^2$
Rise Time	T_r		5		μs	$V_{CE}=30\text{V}$ $I_C=800\mu\text{A}$, $R_L=1\text{K}\Omega$
Fall Time	T_f		5		μs	
Collector Dark Current	I_{CEO}			100	nA	$V_{CE}=10\text{V}$ $E_e=0\text{mw}/\text{cm}^2$
On State Collector Current	$I_{p(on)}$	1		2	mA	$V_{CE}=5\text{v}$ $E_e=1\text{mw}/\text{cm}^2$ $\lambda P=940\text{nm}$
		2		4	mA	
		4		8	mA	
		8			mA	