

T-1(3mm) PHOTOTRANSISTOR

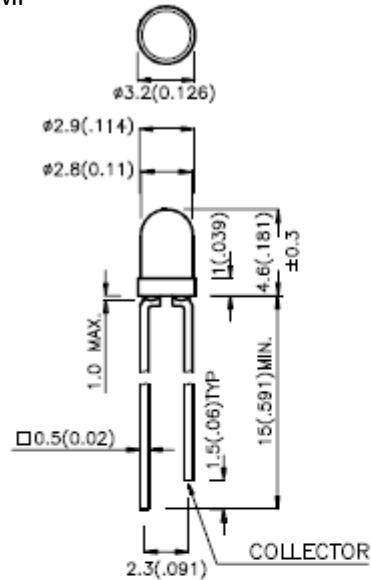
BPW42

- MECHANICALLY AND SPECTRALLY MATCHED TO THE BPW42 SERIES INFRARED EMITTING LED LAMP
- WATER CLEAR LIGHT

Description

Made with NPN silicon phototransistor chips.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subjected to change without notice.

Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

Parameter	Maximum Rating
Collector-to-Emitter Breakdown Voltage	30V
Emitter-to-Collector Breakdown Voltage	5V
Power Dissipation at (or below) 25°C Free Air Temperature	100mW
Operating Temperature Range	$-40^\circ\text{C} \sim +85^\circ\text{C}$
Storage Temperature Range	$-40^\circ\text{C} \sim +85^\circ\text{C}$
Lead Soldering Temperature (4mm for 5sec)	260°C

Electrical and Radiant Characteristics $T_A=25^\circ\text{C}$

Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Condition
$V_{BR\ CBO}$	Collector-to-Emitter Breakdown Voltage	30	-	-	V	$I_C=100\mu\text{A}$ $I_B=0$
$V_{BR\ EBO}$	Emitter-to-Collector Breakdown Voltage	5	-	-	V	$I_E=100\mu\text{A}$ $I_B=0$
$V_{CE\ (SAT)}$	Collector-to-Emitter Saturation Voltage	-	-	0.8	V	$I_C=0.1\text{mA}$ $H=2.5\text{mW/cm}^2$
I_{CEO}	Collector Dark Current	-	-	100	nA	$V_{CE}=10\text{V}$ $H=0\text{mW/cm}^2$
T_R	Rise Time (10% to 90%)	-	3	-	us	$V_{CE}=5\text{V}$ $I_C=1\text{mA}$
T_F	Fall Time (90% to 10%)	-	3	-	us	$R_L=100\ \text{ohms}$
$I_{C(OH)}$	On State Collector Current	0.9	-	1.1	mA	$V_{CE}=5\text{V}$ $E_p=1\text{mW/cm}^2$ $\lambda=940\text{nm}$
		1.1	-	1.3	mA	
		1.3	-	1.6	mA	
		1.6	-	1.9	mA	

