

Part Number: XZRNI56BF

3.0 mmx1.0 mm Right Angle Phototransistor

Features

- Long life and robust package
- Standard Package: 2,000pcs/ Reel
- MSL (Moisture Sensitivity Level): 3
- Halogen-free
- \bullet RoHS compliant





3. Specifications are subject to change without notice.

Package Schematics

Symbol	Parameter	Min.	Тур.	Max.	Unit	Test Condiction
VBR CEO	Collector-to-Emitter Breakdown Voltage	30	-	-	V	$\begin{split} I_c &= 100 \mu A \\ E_e &= 0 m \text{W/cm}^2 \end{split}$
VBR ECO	Emitter-to-Collector Breakdown Voltage	5	-	-	V	$\begin{split} I_{\scriptscriptstyle E} &= 100 \mu A \\ E_{e} &= 0 m \text{W/cm}^2 \end{split}$
VCE(SAT)	Collector-to-Emitter Saturation Voltage	-	-	0.8	V	$\begin{split} I_{\rm C} &= 2mA \\ E_{\rm e} &= 20mW/cm^2 \end{split}$
ICEO	Collector Dark Current	-	-	100	nA	$\label{eq:Vce} \begin{split} V_{CE} &= 10V\\ E_{e} &= 0 m W/cm^{2} \end{split}$
Tr	Rise Time (10% to 90%)	-	15	-	μs	$V_{CE} = 5V$ $I_C = 1mA$ $R_L = 1K\Omega$
$\mathrm{T}\mathrm{F}$	Fall Time (90% to 10%)	-	15	-	μs	
I(ON)	On State Collector Current	0.1	0.3	-	mA	$\begin{array}{l} V_{\rm \scriptscriptstyle CE} = 5V\\ E_{\rm e} = 1mW/cm^2\\ \lambda = 940nm \end{array}$
$\lambda_{0.1}$	Range of spectral bandwidth	670	-	1070	nm	-
λ_p	Wavelength of peak Sensitivity	-	940	-	nm	-
201/2	Angle of half sensitivity	-	160	-	deg	-

XDSA4905 V7 Layout: Maggie L.



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Absolute Maximum Ratings at TA=25°C

Parameter	Maximum Ratings			
Collector-to-Emitter Voltage	30V			
Emitter-to-Collector Voltage	5V			
Power Dissipation at (or below) 25°C Free Air Temperature	100mW			
Operating / Storage Temperature Range	-40 ~ +85 °C			

A Relative Humidity between 40% and 60% is recommended in ESD-protected work areas to reduce static build up during assembly process (Reference JEDEC/JESD625-A and JEDEC/J-STD-033)

0.5

0.4

Ta = 25 °C



Relative Intensity Vs. CIE Wavelength

















***** LED is recommended for reflow soldering and soldering profile is shown below.

Reflow Soldering Profile for SMD Products (Pb-Free Components)



Reel Dimension (Units : mm)

***** The device has a single mounting surface. The device must be mounted according to the specifications.



Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)





Tape Specification (Units : mm)





PACKING & LABEL SPECIFICATIONS



TERMS OF USE

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