Features

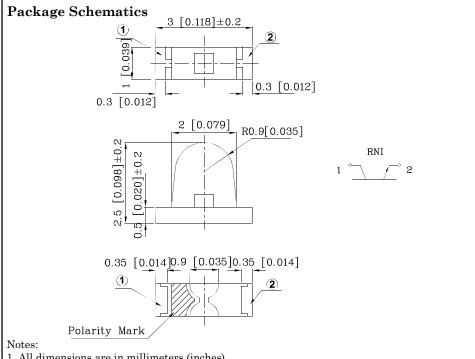
- Long life and robust package
- Standard Package: 2,000pcs/ Reel
- \bullet MSL (Moisture Sensitivity Level): 3

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ullet RoHS compliant







- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is $\pm 0.15(0.006")$ unless otherwise noted.
- 3. Specifications are subject to change without notice.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Condiction
VBR CEO	Collector-to-Emitter Breakdown Voltage	30			V	$I_{\mathrm{C}=100\mu\mathrm{A}}$ $E_{\mathrm{e}=0\mathrm{mW/cm^2}}$
VBR ECO	Emitter-to-Collector Breakdown Voltage	5			V	IE=100μA Ee=0mW/cm²
VCE(SAT)	Collector-to-Emitter Saturation Voltage			0.8	V	IC=2mA Ee=20mW/cm²
Iceo	Collector Dark Current			100	nA	VCE=10V Ee=0mW/cm ²
TR	Rise Time (10% to 90%)		15		μs	Vc=5V Ic=1mA RL=1KΩ
TF	Fall Time (90% to 10%)		15		μs	
I(ON)	On State Collector Current	0.2	0.5		mA	$V_{CE}=5V$ $Ee=1mW/cm^{2}$ $\lambda=940nm$

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°C T ₀ +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)





Typical Electro-Optical Characteristics Curves

 $\begin{array}{ccc} Fig.1 & Collector & Power & Dissipation & vs. \\ & & Ambient Temperature \end{array}$

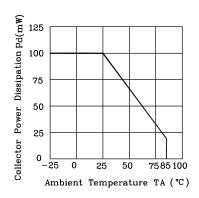


Fig.2 Spectral Sensitivity

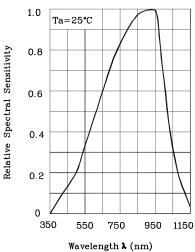


Fig.3 Relative Collector Current vs.
Ambient Temperature

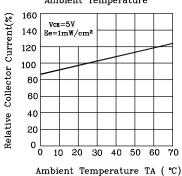
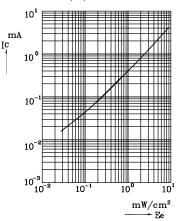


Fig. 4 Collector Current Ic=f(Ec),Vce=5V, Ta=25°C



 $\begin{array}{cccc} \textbf{Fig.5} & \textbf{Collector} & \textbf{Dark} & \textbf{Current} & \textbf{vs.} \\ & \textbf{AmbientTemperature} \\ \end{array}$

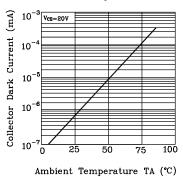
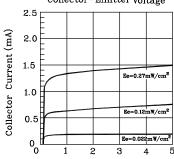
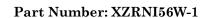


Fig. 6 CollectorCurrent vs.

Collector-Emitter Voltage



Collector-Emitter Voltage VCE (V)



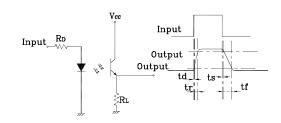


PHOTOTRANSISTOR

Fig. 7 Response Time vs.
Load Resistance

100
Vcs=5V
k=100 uA
Ta=25°C tr
tr
tr
0.1
0.01
0.1
1
10
Load Resistance Ri (ka)

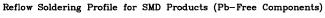
Test Circuit for Response Time

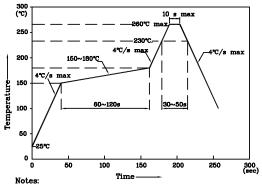


❖ LED is recommended for reflow soldering and soldering profile is shown below.

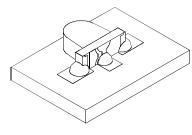
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♦ The device has a single mounting surface. The device must be mounted according to the specifications.

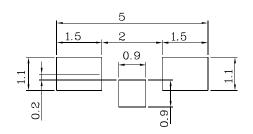




- Notes:
 1. Maximum soldering temperature should not exceed 260°C
- 2. Recommended reflow temperature: 145°C-260°C
- 3. Do not put stress to the epoxy resin during high temperatures conditions

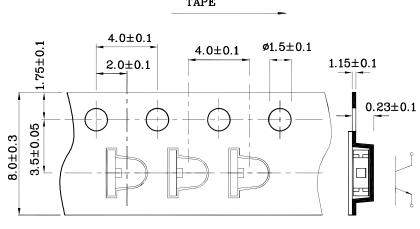


❖ Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)

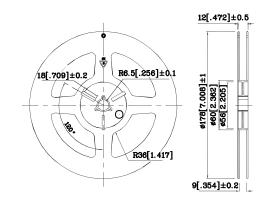


❖ Tape Specification (Units:mm)

TAPE



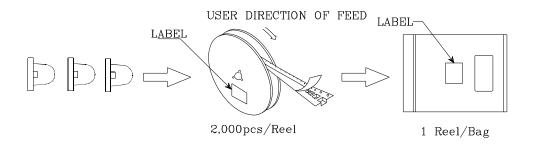
* Reel Dimension

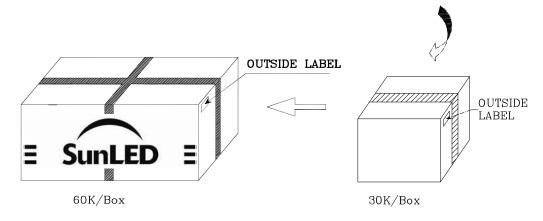


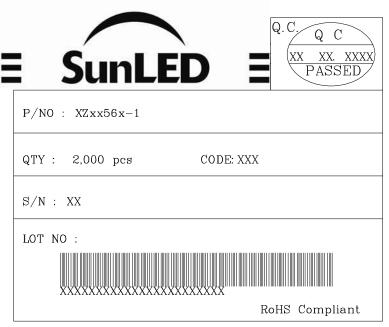




PACKING & LABEL SPECIFICATIONS







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