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LED

RND components

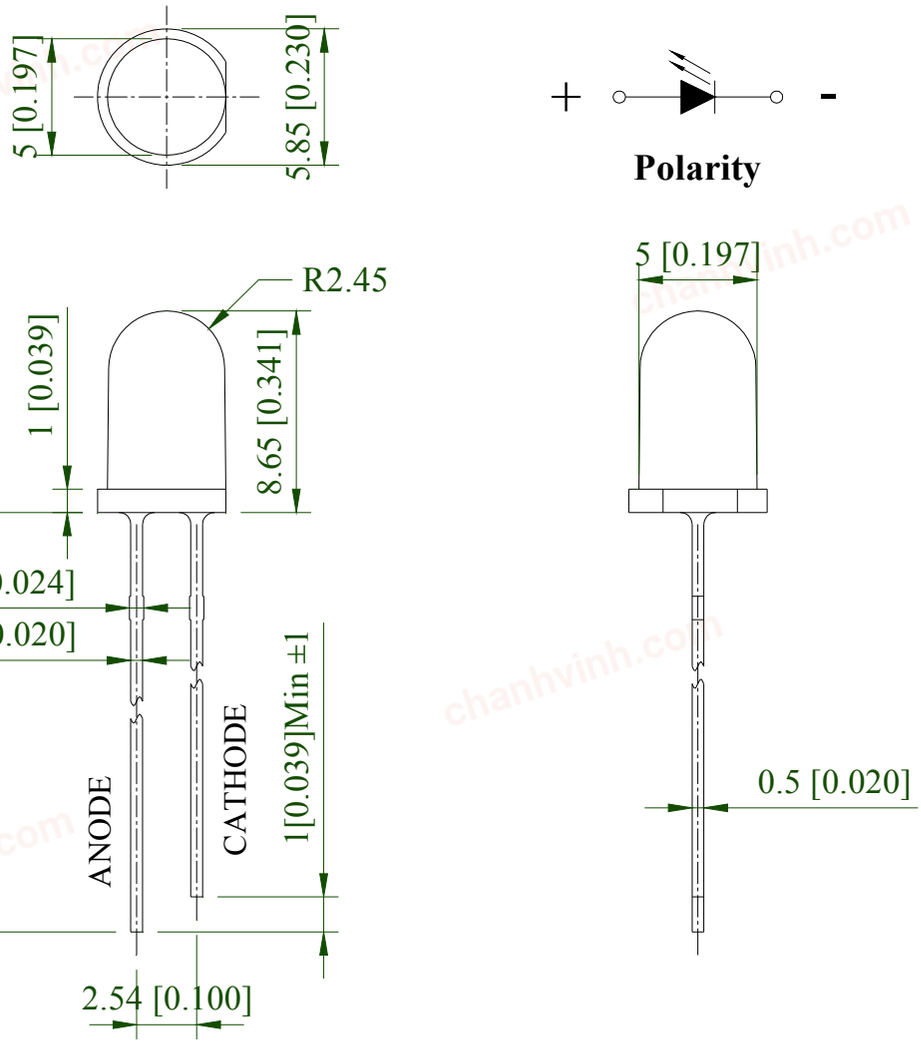
Features:

- Low power consumption.
- General purpose leads.
- High efficiency.
- Reliable and robust.

Applications:

- Telephone.
- Computer.
- Circuit board.
- Status indicators.
- Commercial use.

Part No.	Emitting Color	Lens Color(LED)
RND 135-00170	Deep Red	Water Clear



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Absolute Maximum Ratings at Ta=25℃

Parameters	Symbol	Max.	Unit
Power Dissipation	P_d	65	mW
Peak Forward Current [a]	I_{FP}	100	mA
DC Forward Current [b]	I_F	25	mA
Reverse Voltage	V_R	5	V
Operating Temperature Range	T_{opr}	-40℃ to +80℃	
Storage Temperature Range	T_{stg}	-40℃ to +85℃	
Soldering Temperature	T_{sld}	260℃ for 5 Seconds	

Notes:
a. Derate linearly as shown in derating curve.
b. Duty Factor = 10%, Frequency = 1 kHz.

Electrical Optical Characteristics at Ta=25℃

Parameters	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity [a]	Iv	160	270	---	mcd	IF=20mA
Viewing Angle [b]	$2\theta_{1/2}$	---	15	---	deg.	IF=20mA
Peak Emission Wavelength	λp	---	660	---	nm	IF=20mA
Dominant Wavelength [c]	λd	---	640	---	nm	IF=20mA
Spectral Line Half-Width	△λ	---	45	---	nm	IF=20mA
Forward Voltage	VF	1.6	2.0	2.6	V	IF=20mA
Reverse Current	IR	---	---	10	μA	VR=5V

Notes:
a. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
b. $2\theta_{1/2}$ is the o-axis angle where the luminous intensity is 1⁄2 the peak intensity.
c. The dominant wavelength (λd) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

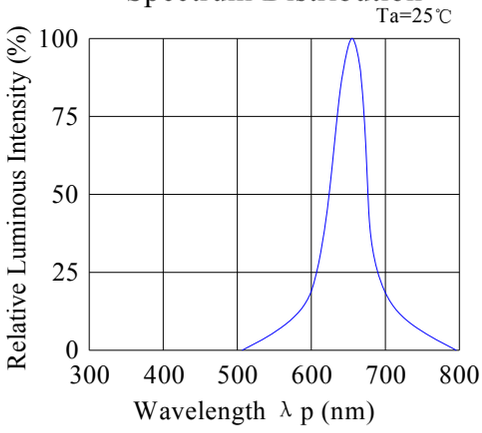
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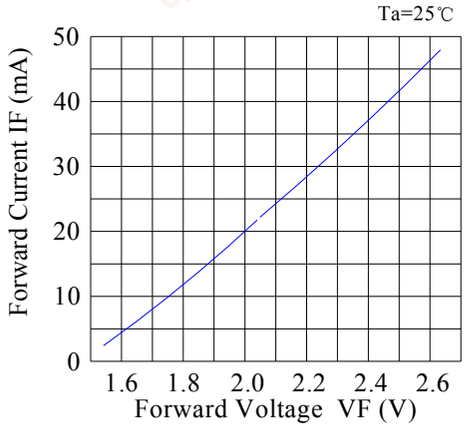
RND components

Typical Electrical / Optical Characteristics Curves (25℃ Ambient Temperature Unless Otherwise Noted)

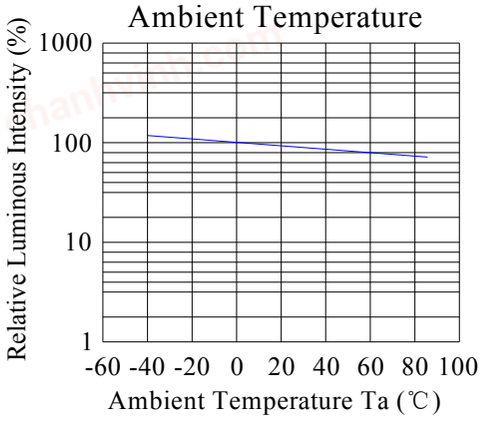
Spectrum Distribution



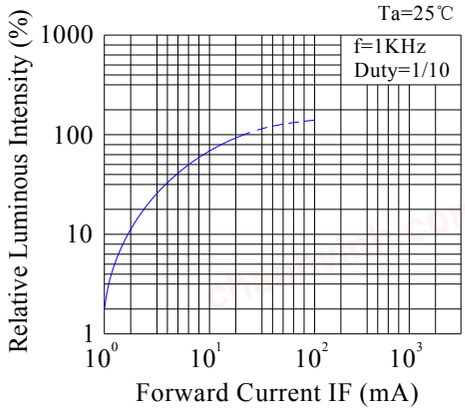
Forward Current & Forward Voltage



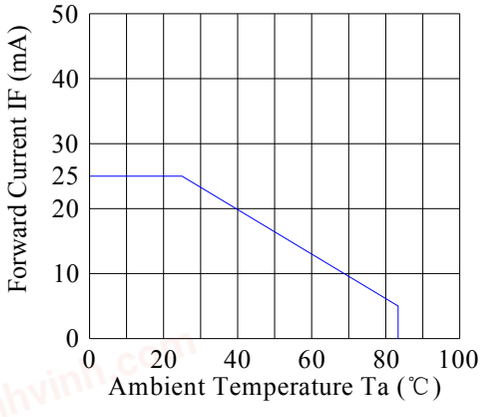
Luminous Intensity & Ambient Temperature



Luminous Intensity & Forward Current



Forward Current Derating Curve



Radiation Diagram

