

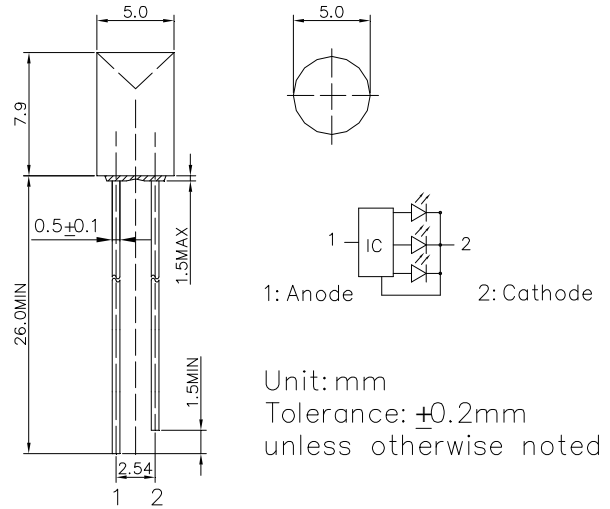
**■ Features**

- High Luminous LEDs
- 5mm Concave Standard Directivity
- Full Color Changing Type
- Water Clear Type

**■ Applications**

- Toys
- Games
- Audio
- Other Lighting

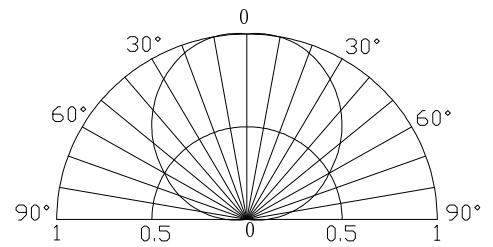
**■ Outline Dimension**



**■ Absolute Maximum Rating (Ta=25°C)**

Item	Symbol	Value	Unit
Power Supply	Voltage	5	V
Operating Temperature	Topr	-30 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Lead Soldering Temperature	Tsol	260°C/5sec	-

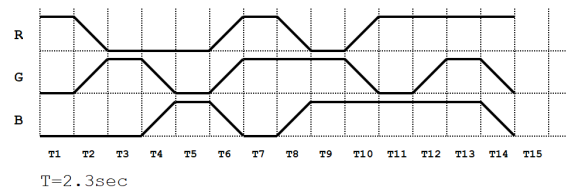
**■ Directivity**



**■ Electrical -Optical Characteristics (Ta=25°C)**

Item	Symbol	Conditio	Min.	Typ.	Max.	Unit
DC Forward Voltage*1	V <sub>fd</sub>	I <sub>F</sub> =20mA	3.8	4.5	5.0	V
Oscillator Frequency*2	F <sub>led</sub>	I <sub>F</sub> =20mA	-	33	-	S
Duty Cycle	Duty	I <sub>F</sub> =20mA	-	-	-	-
Domi. Wavelength*3	$\lambda_D$ (Red)	I <sub>F</sub> =20mA	620	625	630	nm
	$\lambda_D$ (Blue)	I <sub>F</sub> =20mA	465	470	475	nm
	$\lambda_D$	I <sub>F</sub> =20mA	520	525	530	nm
Luminous Intensity*4	I <sub>v</sub> (Red)	I <sub>F</sub> =20mA	500	750	-	mcd
	I <sub>v</sub> (Blue)	I <sub>F</sub> =20mA	220	330	-	mcd
	I <sub>v</sub> (Green)	I <sub>F</sub> =20mA	750	1120	-	mcd
50% Power Angle	2 $\theta_{1/2}$	I <sub>F</sub> =20mA	-	120	-	deg

**■ Waveform Diagram**



\*Tolerance of Blinking Cycle is  $\pm 20\%$

\*1 Tolerance of measurements of forward voltage is  $\pm 0.1$ V

\*2 Tolerance of measurements of Frequency is  $\pm 20\%$

\*3 Tolerance of measurements of dominant wavelength is  $\pm 1$ nm

\*4 Tolerance of measurements of luminous intensity is  $\pm 15\%$