

## CURRENT REGULATIVE LED

# CRLED

- CRLED is LED which supplies constant current to keep LED Intensity Consistency even when power supply voltage fluctuations or load impedance fluctuations occur.

- CRLED is used with current stabilization and current limiting

### ■ Features

- High Luminous LEDs / 5mm Round Standard Directivity
- Superior Weather-resistance / UV Resistant Epoxy
- Water Clear Type

### ■ Absolute Maximum Rating

(Ta=25°C)

Item	Symbol	Value	Unit
DC Forward Voltage	V <sub>F</sub>	20	V
Power Dissipation	P <sub>D</sub>	320	mW
Operating Temperature	T <sub>opr</sub>	-30 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-40~ +100	°C
Lead Soldering Temperature	T <sub>sol</sub>	260°C/5sec	-

### ■ Electrical -Optical Characteristics

(Ta=25°C)

Part Number	Color	V <sub>F</sub> (V)		I <sub>F</sub> (mA)			I <sub>R</sub> (μA)	I <sub>v</sub> (mcd)*			λD(nm)*			2θ1/2(deg)
		Min	Ma	Min	Typ.	Max.	Max..	Min.	Typ.	Max.	Min.	Typ.	Max.	Typ.
		x.		V <sub>F</sub> =12V			V <sub>R</sub> =8V	V <sub>F</sub> =12V						
OSW5DK5A31A-CRLED14	White	5.5	20	-	14	-	10	-	12000	-	X=0.27, Y=0.28		30	
OSM5DK5A31A-CRLED14	Warm White	5.5	20	-	14	-	10	-	8000	-	X=0.45, Y=0.41		30	
OSK5DK5A31A-CRLED14	Pink	5.5	20	-	14	-	10	-	2500	-	X=0.45, Y=0.17		30	
OSB64L5A31A-CRLED14	Ice Blue	5.5	20	-	14	-	10	-	10000	-	X=0.19, Y=0.29		30	
OSB5SA5A31A-CRLED14	Blue	5.5	20	-	14	-	10	-	6500	-	465   470   475		30	
OSG5DA5A31A-CRLED14	Pure Green	5.5	20	-	14	-	10	-	12000	-	520   525   530		30	
OSG8NU5A31A-CRLED14	Yellow Green	5	20	-	14	-	10	-	750	-	565   570   575		30	
OSY5JA5A31A-CRLED14	Yellow	5	20	-	14	-	10	-	1800	-	585   590   595		30	
OSY5MA5A31A-CRLED14	Yellow	5	20	-	14	-	10	-	7500	-	585   590   595		30	
OSO5JA5A31A-CRLED14	Orange	5	20	-	14	-	10	-	1800	-	600   605   610		30	
OSR5JA5A31A-CRLED14	Red	5	20	-	14	-	10	-	1800	-	620   625   630		30	
OSR5MA5A31A-CRLED14	Red	5	20	-	14	-	10	-	7500	-	620   625   630		30	

\*1 Tolerance of measurements of chromaticity coordinate is ±10%

\*2 Tolerance of measurements of dominant wavelength is ±1nm

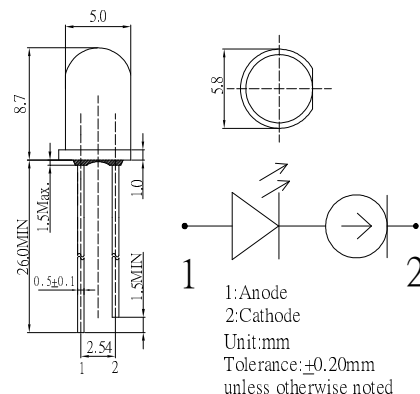
\*3 Tolerance of measurements of luminous intensity is ±15%

\*4 Tolerance of measurements of forward voltage is ±0.1V

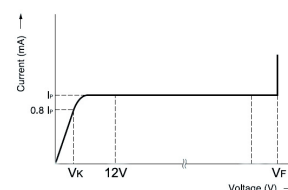
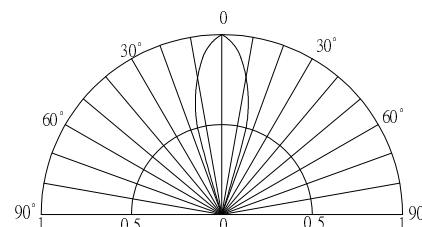
### ■ Applications

- Electronic Signs And Signals/ Small Area Illuminations
- Back Lighting/ Toys/ Other Lighting

### ■ Outline Dimension



### ■ Directivity

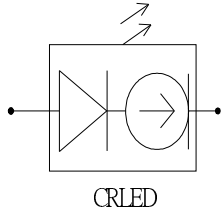


Explanation of terms  
I<sub>p</sub> Pinch-off current at 12v  
V<sub>k</sub> Voltage which produces 0.8I<sub>p</sub> or greater current  
V<sub>F</sub> Breakdown voltage

<b>Current Regulative LED</b>
<b>5mm Round LED</b>
<b>OSXXXX5A31A-CRLED14</b>

■ **Typical Applications**

1: Single LED



2: Multi- LEDs in series

