

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 _F	20	V
Power Dissipation	P _D	350	mW
Operating Temperature	T _{opr}	-30 ~ +85	°C
Storage Temperature	T _{stg}	-40~ +100	°C
Lead Soldering Temperature	T _{sol}	260°C/5sec	-

■ Electrical -Optical Characteristics

(Ta=25°C)

Part Number	Color	V _F (V)		I _F (mA)			I _R (μA)	I _v (mcd)*			λD(nm)*			2θ1/2(deg)
		Min	Max	Min	Typ.	Max.	Max..	Min.	Typ.	Max.	Min.	Typ.	Max.	Typ.
		V _F =12V		V _R =8V		V _F =12V								
OSW5DK5A31A-CRLED18	White	5.5	20		18	-	10	-	12000	-	X=0.27, Y=0.28			30
OSM5DK5A31A-CRLED18	Warm White	5.5	20		18	-	10	-	8000	-	X=0.45, Y=0.41			30
OSB5SA5A31A-CRLED18	Blue	5.5	20		18	-	10	-	6500	-	465	470	475	30
OSG5DA5A31A-CRLED18	Pure Green	5.5	20		18	-	10	-	12000	-	520	525	530	30
OSY5MA5A31A-CRLED18	Yellow	5	20		18	-	10	-	7500	-	585	590	595	30
OSR5MA5A31A-CRLED18	Red	5	20		18	-	10	-	7500	-	620	625	630	30

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

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

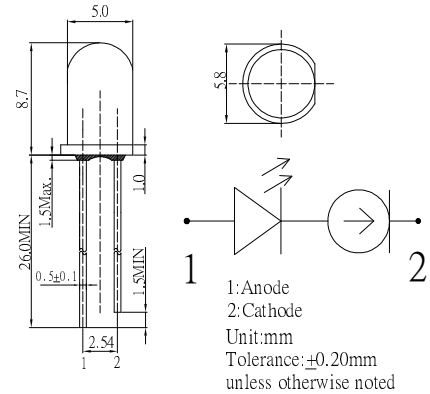
*3 Tolerance of measurements of luminous intensity is ±15%

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

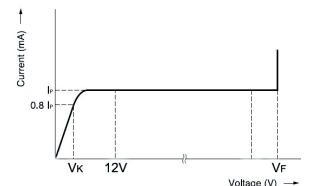
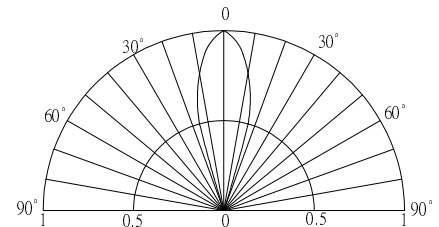
■ Applications

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

■ Outline Dimension

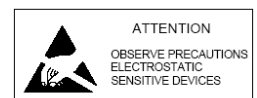


■ Directivity



Explanation of terms
I_p: Pinch-off current at 12v
V_k: Voltage which produces 0.8Ip or greater current
V_r: Breakdown voltage

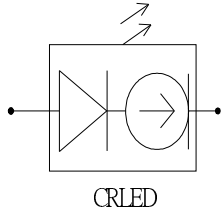
LED & Application Technologies



Current Regulative LED
5mm Round LED
OSXXXX5A31A-CRLED18
VER A.1

■ **Typical Applications**

1: Single LED



2: Multi- LEDs in series

