

CURRENT REGULATIVE LED

■ Outline Dimension

CRLED

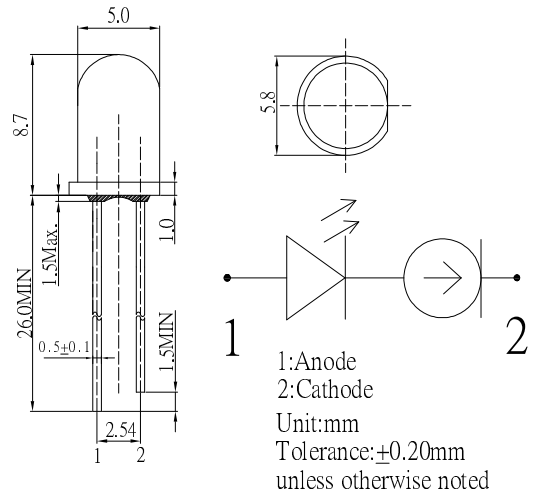
- CRLED is LED which supplies constant current to keep LED Intensity Consistency even when power supply voltage fluctuations or load impedance fluctuations occur.
- CRLED is used with current stabilization and current limiting

■ Features

- 5mm Round Standard Directivity
- UV Resistant Epoxy
- Water Clear Type

■ Applications

- Counterfeit Detection/ Fluid Leak Detection
- NDT Crack Detection/ Forensic Science/Infection Control

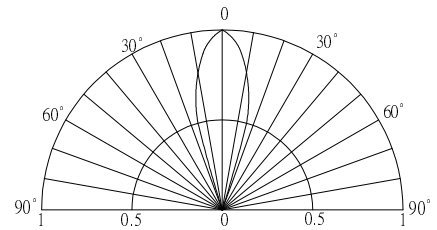


■ Absolute Maximum Rating

($T_a = 25^\circ\text{C}$)

Item	Symbol	Value	Unit
DC Forward Voltage	V_F	20	V
Power Dissipation	P_D	320	mW
Operating Temperature	T_{opr}	-30 ~ +85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 ~ +100	$^\circ\text{C}$
Lead Soldering Temperature	T_{sol}	260 $^\circ\text{C}$ /5sec	-

■ Directivity



■ Electrical -Optical Characteristics

($T_a = 25^\circ\text{C}$)

Part Number	Visual Color	V_F (V)*		I_F (mA)			I_R (μA)	Radiant flux*(mW)			λD (nm)*			$2\theta_{1/2}$ (deg)
		Min.	Max.	Min.	Typ.	Max.	Max..	Min.	Typ.	Max.	Min.	Typ.	Max.	Typ.
		$V_F = 12\text{V}$			$V_F = 12\text{V}$			$V_R = 8\text{V}$	$V_F = 12\text{V}$			$V_F = 12\text{V}$		
OSV1YL5A31A-CRLED14	White	5	20	-	14	-	10	1.5	3	-	360	365	370	30
OSV2YL5A31A-CRLED14	White	5	20	-	14	-	10	2.5	5	-	370	375	380	30
OSV3SL5A31A-CRLED14	Purple	5	20	-	14	-	10	5	7	-	380	385	390	30
OSV4DL5A31A-CRLED14	Purple	5	20	-	14	-	10	7	10	-	390	395	400	30
OSV5DL5A31A-CRLED14	Purple	5	20	-	14	-	10	7	10	-	400	405	410	30

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

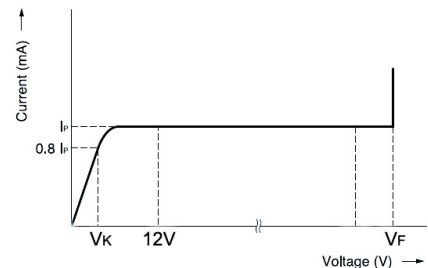
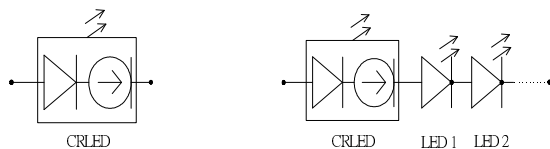
*2 Tolerance of measurements of radiant flux is $\pm 15\%$

*3 Tolerance of measurements of forward voltage is $\pm 0.1\text{V}$

■ Typical Applications

1: Single LED

2: Multi- LEDs in series



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