

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)

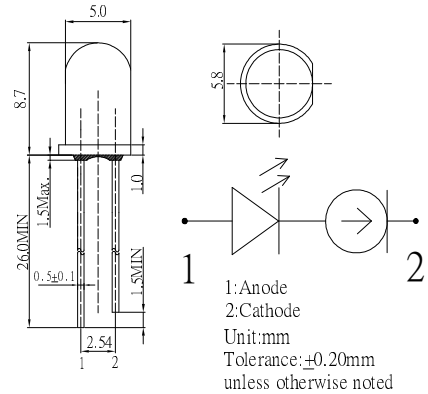
| Item | Symbol | Value | Unit |
|----------------------------|------------------|------------|------|
| DC Forward Voltage | V _F | 20 | V |
| Power Dissipation | P _D | 320 | mW |
| Operating Temperature | T _{opr} | -30 ~ +85 | °C |
| Storage Temperature | T _{stg} | -40~ +100 | °C |
| Lead Soldering Temperature | T _{sol} | 260°C/5sec | - |

■ Electrical -Optical Characteristics

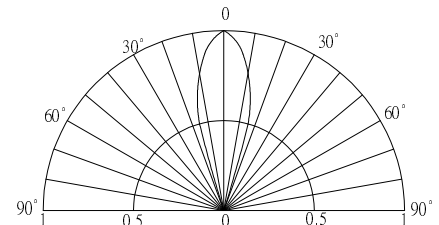
(Ta=25°C)

| Part Number | Color | V _F (V) | | I _F (mA) | | | I _R (μA) | I _v (mcd)* | | | λD(nm)* | | | 2θ1/2(deg) |
|---------------------|--------------|--------------------|----|---------------------|------|------|---------------------|-----------------------|-------|------|-----------------|------|------|------------|
| | | Min | Ma | Min | Typ. | Max. | Max.. | Min. | Typ. | Max. | Min. | Typ. | Max. | Typ. |
| | | x. | | V _F =12V | | | V _R =8V | V _F =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 | |

■ Outline Dimension



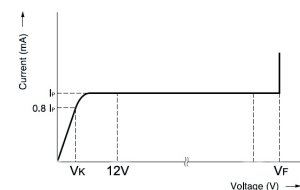
■ Directivity



*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

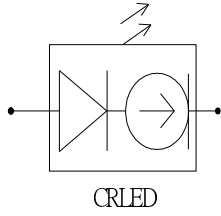


Explanation of terms
 I_p: Pinch-off current at 12v
 V_k: Voltage which produces 0.8I_p or greater current
 V_F: Breakdown voltage

| |
|-------------------------------|
| Current Regulative LED |
| 5mm Round LED |
| OSXXXX5A31A-CRLED14 |
| |

■ **Typical Applications**

1: Single LED



2: Multi- LEDs in series

