

Preliminary

R50AWC2E-013 LED5V-WW

DATA SHEET



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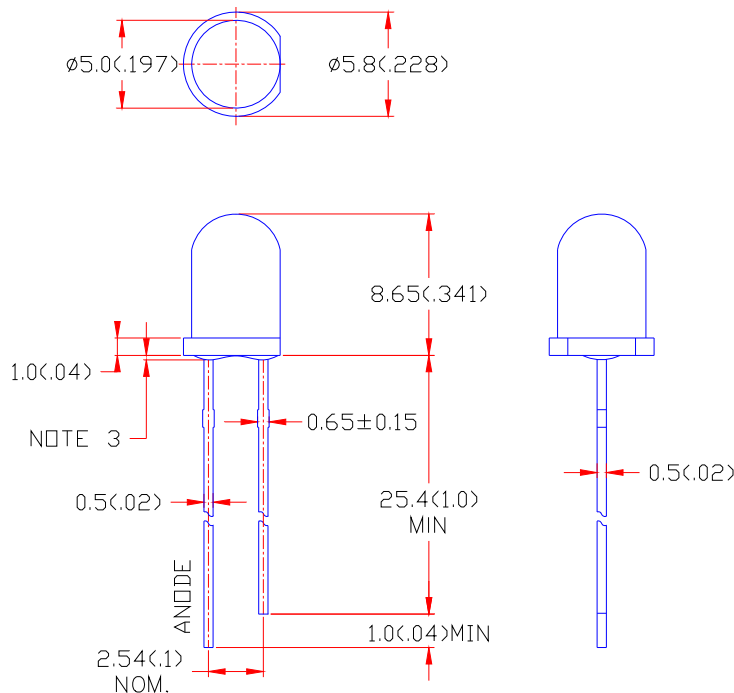
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Version:1.0

Features:

- ◆ High intensity
- ◆ 5mm diameter package
- ◆ General purpose leads
- ◆ Pb-free

Package Dimensions:



Part NO.	Chip Material	Lens Color	Emission Color
R50AWC2E-013	InGaN	Water Clear	Super Bright White

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25 mm (.010") unless otherwise noted.
3. Protruded resin under flange is 1.0mm(.04") max
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice
6. Precautions for ESD:

Static electricity and surges can damage the LED. It is recommended to use an anti-electrostatic wrist band or glove when handling the LED. All devices, equipment and machinery must be properly grounded.

7. This data-sheet only valid for six months.

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Absolute Maximum Ratings at Ta=25°C

Parameter	MAX.	Unit
Power Dissipation	140	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Continuous Forward Current	20	mA
Derating Linear From 50°C	0.4	mA/°C
Reverse Voltage	5	V
Electrostatic Discharge (ESD)	2000	V
Operating Temperature Range	-20°C to +80°C	
Storage Temperature Range	-30°C to +100°C	
Lead Soldering Temperature [4mm(.157") From Body]	255±5°C for 5 Seconds	
Wave Soldering Temperature	Peak Temperature 245°C~260°C for 10 Seconds	

Electrical Optical Characteristics at Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I _v	10000	24000		mcd	I _F =20mA (Note 1)
Viewing Angle	2θ _{1/2}	25	30	35	Deg	(Note 2)
Forward Voltage	V _F		4.9	7	V	I _F =20mA
Reverse Current	I _R			10	μA	V _R =5V

Color Rank	x	y	x	y	x	y	x	y
BIN A1	0.2020	0.1530	0.2113	0.1719	0.2449	0.1768	0.2355	0.1612
BIN A2	0.2113	0.1719	0.2206	0.1907	0.2542	0.1924	0.2449	0.1768
BIN B1	0.2206	0.1907	0.2310	0.2107	0.2617	0.2050	0.2542	0.1924
BIN B2	0.2310	0.2107	0.2414	0.2307	0.2692	0.2176	0.2617	0.2050
BIN C1	0.2414	0.2307	0.2515	0.2503	0.2768	0.2303	0.2692	0.2176
BIN C2	0.2515	0.2503	0.2616	0.2698	0.2843	0.2429	0.2768	0.2303
BIN D1	0.2616	0.2698	0.2716	0.2891	0.2919	0.2557	0.2843	0.2429
BIN D2	0.2716	0.2891	0.2816	0.3083	0.2994	0.2684	0.2919	0.2557
BIN E1	0.2816	0.3083	0.2924	0.3222	0.3063	0.2776	0.2994	0.2684
BIN E2	0.2924	0.3222	0.3032	0.3361	0.3131	0.2868	0.3063	0.2776
BIN F1	0.3032	0.3361	0.3166	0.3533	0.3216	0.2981	0.3131	0.2868
BIN F2	0.3166	0.3533	0.3300	0.3705	0.3300	0.3094	0.3216	0.2981
BIN G1	0.3300	0.3705	0.3461	0.3822	0.3424	0.3260	0.3300	0.3094
BIN G2	0.3461	0.3822	0.3622	0.3939	0.3548	0.3425	0.3424	0.3260

Notes:

1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. θ_{1/2} is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. Forward voltage measurement allowance is ±0.1V
4. Luminous Intensity Measurement Allowance is ±10%

Typical Electrical / Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

