

Part Number: SE-5-9520RC-ZD

Rev:00

■ Absolute Maximum Rating

Item	Symbol	Absolute Maximum Rating	Unit
Forward Current	I _F	50	mA
Peak Forward Current*	I _{FP}	150	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	100	mW
Operation Temperature	T _{opr}	-30℃+85℃	℃
Storage Temperature	T _{stg}	-30℃+85℃	℃
Lead Soldering Temperature*	T _{sol}	Max. 260℃ for 5sec Max.	

*I_{FP} Conditions: Pulse Width≤10msec duty≤1/10

*T_{sol} Conditions: 3mm from the base of the epoxy bulb

*ESD : When revers voltage is over 6.2V, the zener diode will be protective and makes the current through.

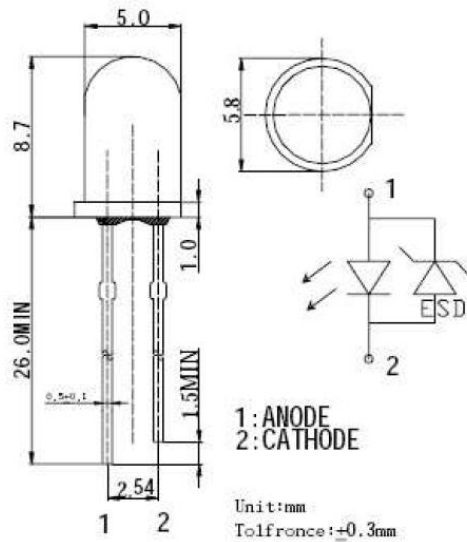
■ Typical Optical/ Electrical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V _F	I _F =20mA	1.8	2.0	2.4	V
Reverse Current	I _R	V _r =5V	--	--	10	uA
50% Power Angle	2θ _{1/2}	I _F =20mA	--	15	--	deg
Luminous Intensity	I _v	I _F =20mA	3000	5000	--	mcd
Peak Wavelength	λ _P	I _F =20mA	620	625	630	nm
Recommend Forward Current	I _F (rec)	--	--	50	--	mA

Notes:

- 1.Absolute maximum ratings Ta=25℃.
- 2.Tolerance of measurement of forward voltage±0.1V.
- 3.Tolerance of measurement of peak Wavelength±2.0nm.
- 4.Tolerance of measurement of luminous intensity±15%.

■ Package Dimensions And Materials



Tolerance Grade	Dimension Tolerance (UNIT:mm)			
	0.5~3	>3~6	>6~30	>30~120
Medium (m)	±0.1	±0.1	±0.2	±0.3
Chip		Lens Color		
Material	Emitting Color			
InGaN/SiC	BLUE		Water clear	

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■ Reliability Performance

1. Test Items And Result

Test Classification	Test Item	Test Conditions	Test Duration	Sample Size	AC/RE
Life Test	Room Temperature DC Operating Life Test	Ta=25°C ±5°C I _F =20mA	1000 hrs	30pcs	0/1
Environment Test	Thermal Shock Test	-10°C ±5°C ↔ +100°C ±5°C 5min. 10sec. 5min.	50 cycles	30 pcs	0/1
	Temperature Cycle Test	-40°C ±5°C ↔ +85°C ±5°C 30min. 5min. 30min.	50 cycles	30 pcs	0/1
	High Temperature & High Humidity Test	Ta=85°C ±5°C RH =85%±0.5 %RH	1000 hrs	30 pcs	0/1
	High Temperature Storage	Ta=100°C ±5°C	1000 hrs	30 pcs	0/1
	Low Temperature Storage	Ta=-55°C ±5°C	1000 hrs	30 pcs	0/1
Mechanical Test	Resistance to Soldering Heat	Ta=230°C ±5°C	5sec.	30 pcs	0/1
	Lead Integrity	Load 2.5N(0.25kgf) 0° ~ 90° ~ 0°	3times	30 pcs	0/1

2. Criteria for Judging The Damage

Item	Symbol	Test Conditions	Criteria for Judgment	
			Min.	Max.
Forward Voltage	V _F	I _F =20mA		U.S.L.*1.2
Reverse Current	I _R	V _R =5V		U.S.L.*2.2
Luminous Intensity	I _v	I _F =20mA	L.S.L.**×0.7	

U.S.L.* : Upper Standard Level

L.S.L.** : Lower Standard Level

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■ Typical Optical/Electrical Characteristics Curves
(Ta=25°C Unless Otherwise Noted)

