■Absolute Maximum Rating

Item	Symbol	Absolute Maximum Rating	Unit
Forward Current	I_F	20	mA
Peak Forward Current*	I_{FP}	160	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	85	mW
Electrostatic discharge	E_{SD}	400	V
Operation Temperature	T_{opr}	-25∽+80	℃
Storage Temperature	T_{stg}	-40∽+80	℃
Lead Soldering Temperature*	T_{sol}	Max. 230℃ for 5sec Max.	

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

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

■ Typical Optical/ Electrical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F=20mA	1.9	2.1	2.4	V
Reverse Current	I_R	Vr=5V	--	--	10	uA
50% Power Angle	$2\theta_{1/2}$	I_F=20mA	--	20	--	deg
Luminous Intensity	I_V	I_F=20mA	200	400	--	mcd
Peak Wavelength	λ_P	I_F=20mA	--	640	--	nm
Recommend Forward Current	I_F(rec)	--	--	10~20	--	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%.

■Absolute Maximum Rating

Item	Symbol	Absolute Maximum Rating	Unit
Forward Current	I_F	20	mA
Peak Forward Current*	I_{FP}	160	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	85	mW
Electrostatic discharge	E_{SD}	400	V
Operation Temperature	T_{opr}	-25∽+80	℃
Storage Temperature	T_{stg}	-40∽+80	℃
Lead Soldering Temperature*	T_{sol}	Max. 230℃ for 5sec Max.	

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

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

■ Typical Optical/ Electrical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F=20mA	3.0	3.4	3.8	V
Reverse Current	I_R	Vr=5V	--	--	10	uA
50% Power Angle	$2\theta_{1/2}$	I_F=20mA	--	20	--	deg
Luminous Intensity	I_V	I_F=20mA	400	600	--	mcd
Peak Wavelength	λ_P	I_F=20mA	--	465	--	nm
Recommend Forward Current	I_F(rec)	--	--	10~20	--	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%.

■Absolute Maximum Rating

Item	Symbol	Absolute Maximum Rating	Unit
Forward Current	I_F	20	mA
Peak Forward Current*	I_{FP}	160	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	85	mW
Electrostatic discharge	E_{SD}	400	V
Operation Temperature	T_{opr}	-25∽+80	℃
Storage Temperature	T_{stg}	-40∽+80	℃
Lead Soldering Temperature*	T_{sol}	Max. 230℃ for 5sec Max.	

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

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

■ Typical Optical/ Electrical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F=20mA	2.8	3.3	3.8	V
Reverse Current	I_R	Vr=5V	--	--	10	uA
50% Power Angle	$2\theta_{1/2}$	I_F=20mA	--	20	--	deg
Luminous Intensity	I_V	I_F=20mA	500	1000	--	mcd
Peak Wavelength	λ_P	I_F=20mA	--	515	--	nm
Recommend Forward Current	I_F(rec)	--	--	10~20	--	mA

Notes:

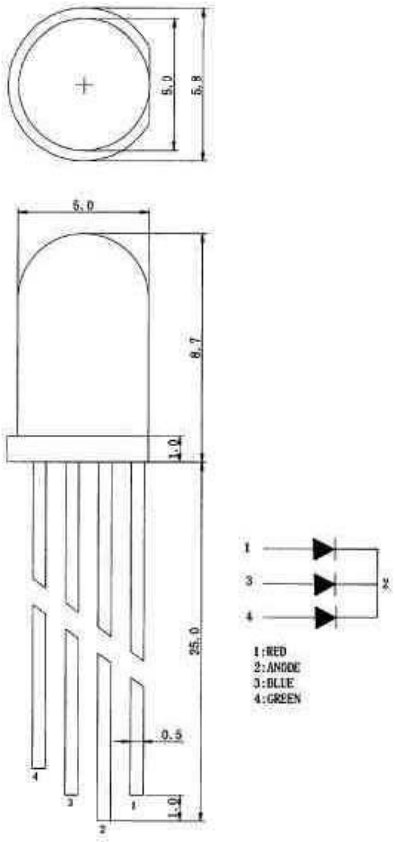
1.Absolute maximum ratings Ta=25℃.

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



Chip		Lens Color
Material	Emitting Color	
GaAsP/GaAs	RED	Water clear
InGaAlN	BLUE	
InGaN/Sic	GREEN	

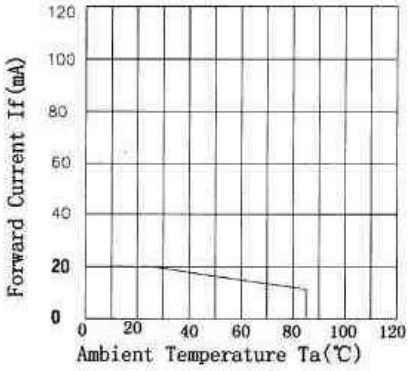
Notes:

1. All dimension units are millimeters.
2. All dimension tolerance is ±0.2mm unless otherwise noted.
3. An epoxy meniscus may extend about 1.5mm down the leads.
4. Burr around bottom of epoxy may be 0.5mm max..

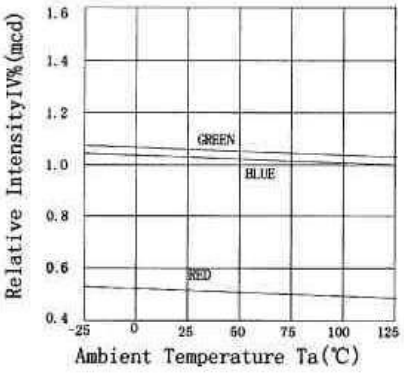
■ Typical Optical/Electrical Characteristics Curves

(Ta=25℃ Unless Otherwise Noted)

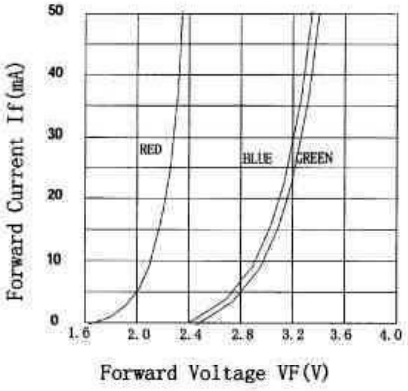
Forward Current vs. Ambient Temperature



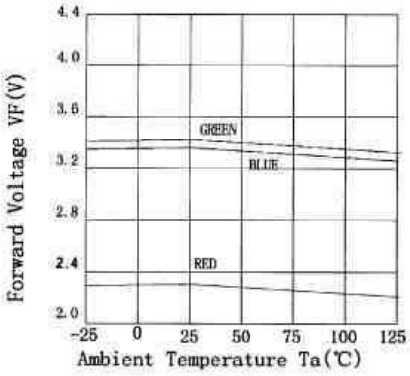
Relative Intensity vs. Ambient Temperature

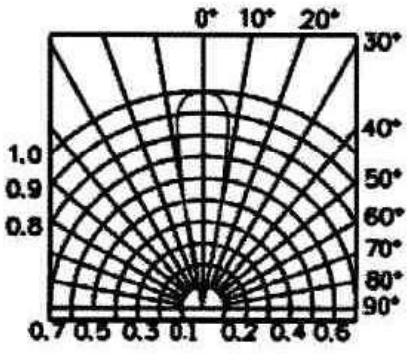


Forward Current vs. Forward Voltage



Forward Voltage vs. Ambient Temperature





Luminous Spertrum(Ta=25℃) SPECTRAL RADIANCE