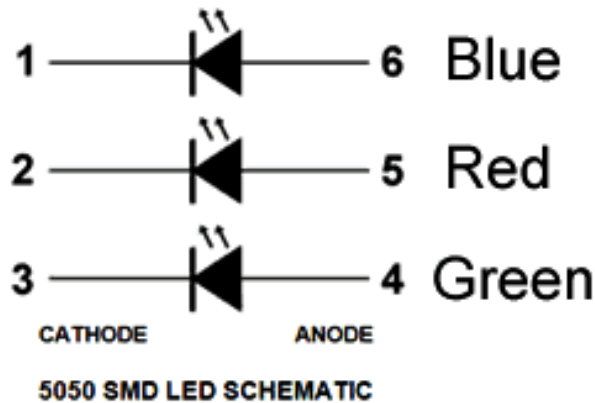
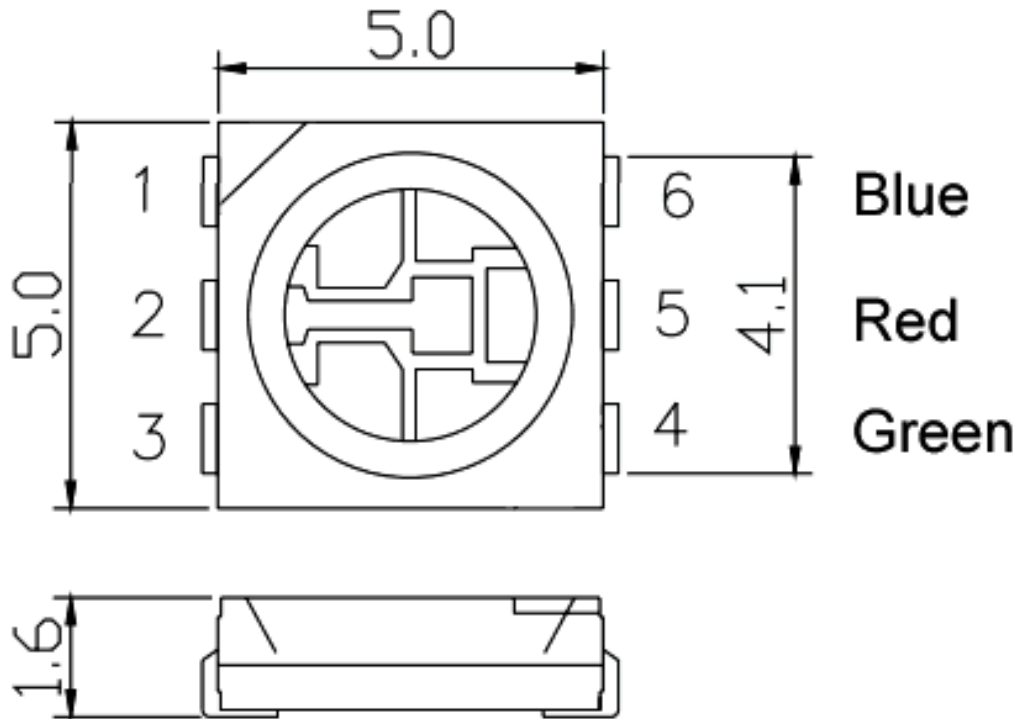


SPECIFICATION FOR APPROVAL

- ★ Commodity: 5050 SMD
- ★ Model No: 5050-RGB
- ★ Emission Color: RGB
- ★ Lens Appearance: Water Clear
- ★ Quality & Safety Certification: RoHS

CUSTOMER APPROVED BY	DATE

● Package Dimensions



Notes

1: All dimensions are in millimeters.

2: Tolerance is ± 0.1 mm unless otherwise specified.

● Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Power Dissipation	P_d	R:100 G:100 B:100	mW
Forward Current	I_F	R:20 G:20 B:20	mA
Peak Forward Current* ¹	I_{FP}	R:100 G:100 B:100	mA
Reverse Voltage	V_R	R:5 G:5 B:5	V
Operating Temperature Range	T_{opr}	-20~80	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-40~85	$^\circ\text{C}$
Soldering Temperature	T_{sol}	260 (for 5 seconds)	$^\circ\text{C}$

● Typical Electrical-Optical Characteristics Curves ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Forward Voltage	V_F	R	1.8	2.0	2.2	V
		G	3.0	3.2	3.4	V
		B	3.0	3.2	3.4	V
Reverse Current	I_R	$V_R = 5V$			10	μA
Dominant Wavelength	λ_D	R	620	625	630	nm
		G	515	520	525	nm
		B	460	465	470	nm
Luminous Intensity	I_v	R	500	650	800	mcd
		G	800	1000	1200	mcd
		B	300	400	500	mcd
Viewing Angle	$2\theta_{1/2}$	$I_F = 20\text{mA}$		120		deg

● Typical Electrical/Optical Characteristics Curves (R)

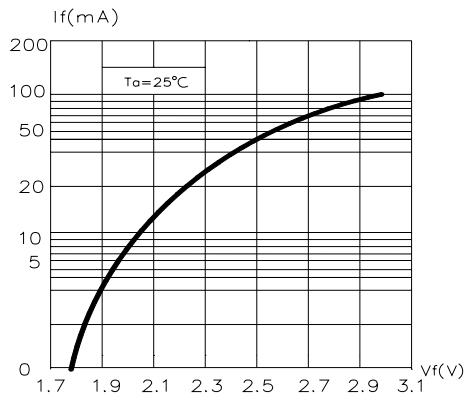


Fig.1 Forward Current vs. Forward Voltage

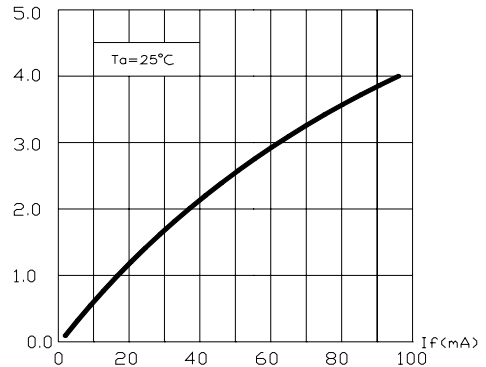


Fig.2 Relative Luminous Intensity vs. Forward Current

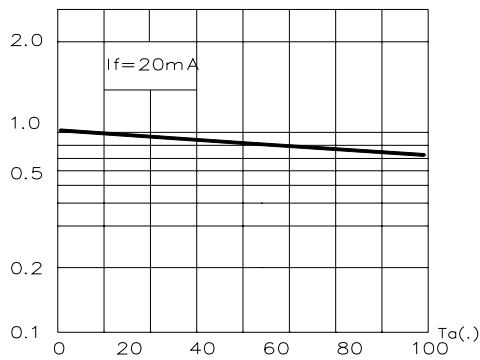


Fig.3 Relative Luminous Intensity vs. Ambient Temperature

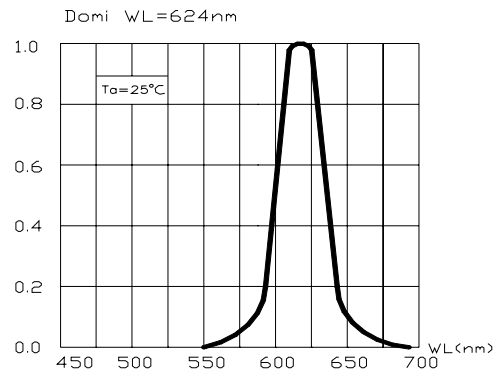


Fig.4 Relative Luminous Flux vs. Wavelength

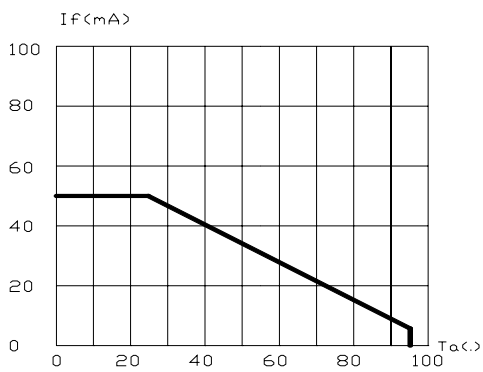


Fig.5 Maximum Forward Current vs. Ambient Temperature

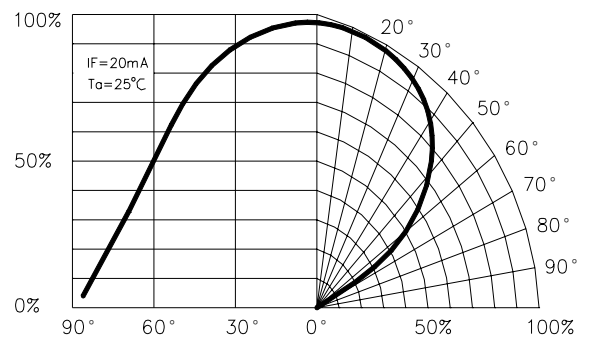
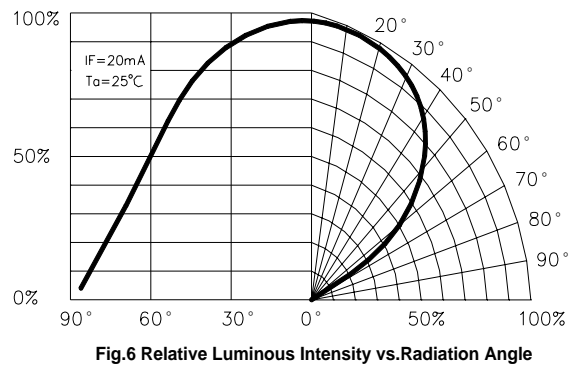
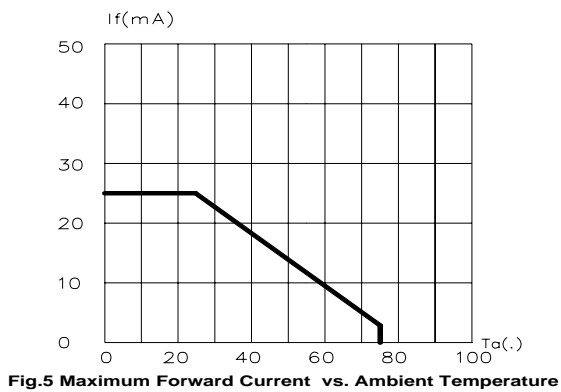
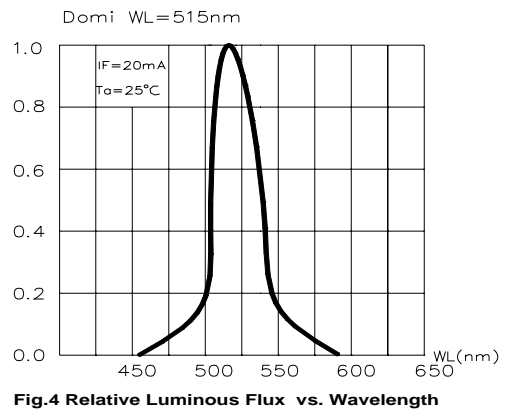
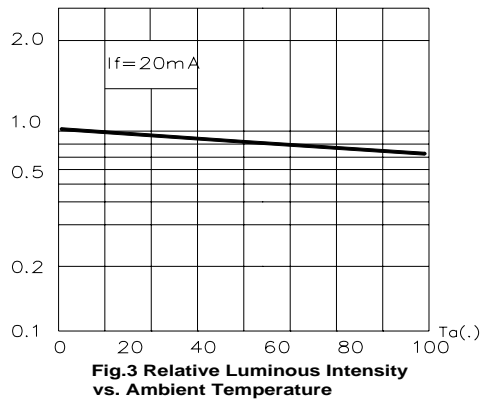
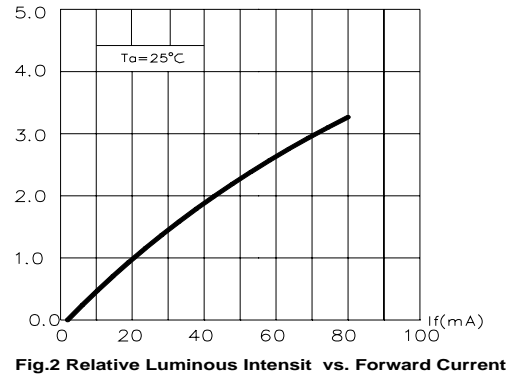
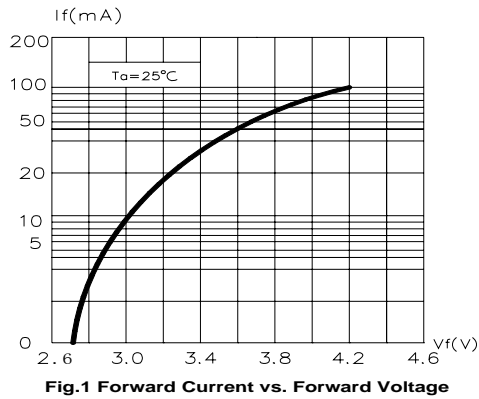


Fig.6 Relative Luminous Intensity vs. Radiation Angle

● Typical Electrical/Optical Characteristics Curves (G)



● Typical Electrical/Optical Characteristics Curves (B)

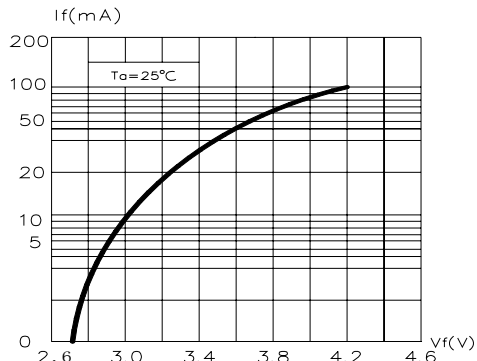


Fig.1 Forward Current vs. Forward Voltage

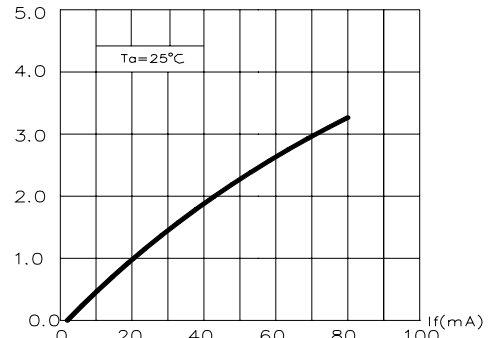


Fig.2 Relative Luminous Intensity vs. Forward Current

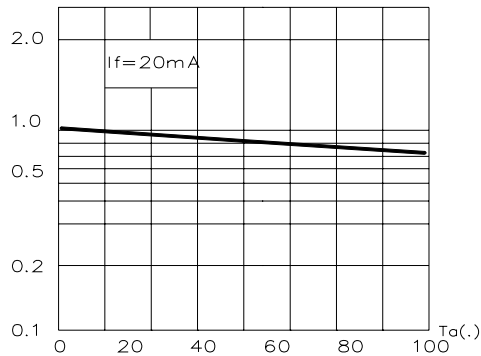


Fig.3 Relative Luminous Intensity vs. Ambient Temperature

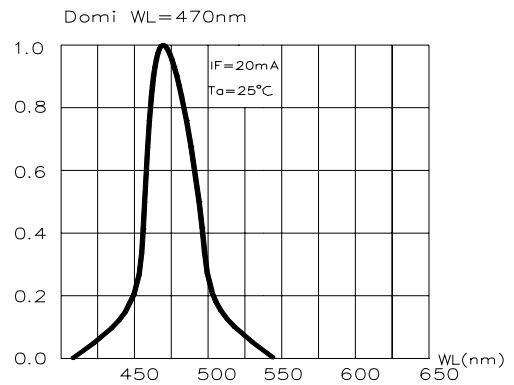


Fig.4 Relative Luminous Flux vs. Wavelength

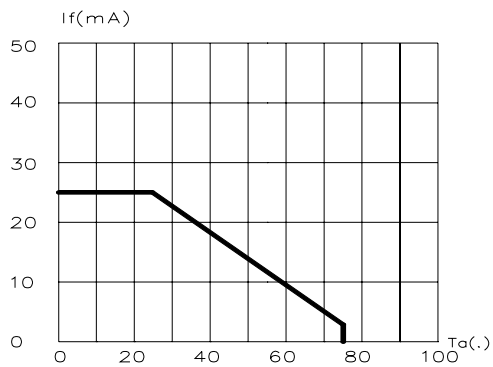


Fig.5 Maximum Forward Current vs. Ambient Temperature

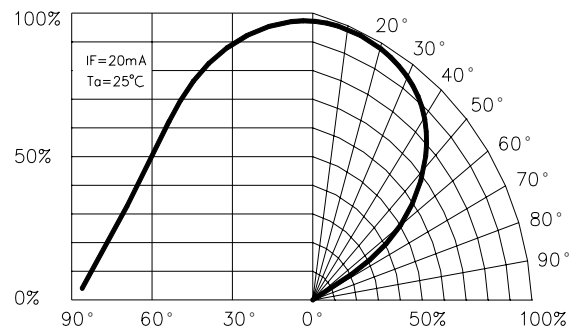


Fig.6 Relative Luminous Intensity vs. Radiation Angle