

**Feature**

- § Low Power Consumption
- § High Intensity
- § I.C. compatible

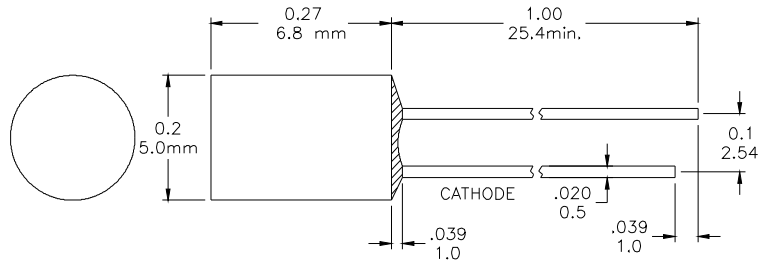
**Applications**

- § Commercial Outdoor Sign Board
- § Front Panel Indicator
- § Dot-Matrix Module
- § LED Bulb

**Description**

- § These High Intensity LEDs are Based on GaP/GaP Material Technology
- § Emitted color:Green
- § Water Transparent Lens

**Package Dimension**



\*Tolerance :  $\pm \frac{0.01}{0.25}$  Unit :  $\pm \frac{\text{inch}}{\text{mm}}$

**Absolute Maximum Ratings at Ta=25°C**

Symbol	Parameter	Max.	Unit
PD	Power Dissipation	100	mW
VR	Reverse Voltage	5	V
IAF	Average Forward Current	30	mA
IPF	Peak Forward Current (Duty=0.1, 1kHz)	100	mA
—	Derating Linear Form 25°C	0.4	mA/°C
Topr	Operating Temperature Range	-40 to + 80	°C
Tstg	Storage Temperature Range	-40 to + 100	°C
Lead Soldering Temperature [1.6mm (0.063inch) From Body] 260°C For 5 Seconds.			

**Electrical / Optical Characteristics and Curves at Ta=25°C**

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
VF	Forward Voltage	IF= 20 mA		2.0	2.4	V
IR	Reverse Current	VR= 5 V			100	μ A
$\Delta \theta$	Half Intensity Angle	IF= 20 mA		100		Deg.
IV	Luminous Intensity	IF= 20 mA		100		mcd.
$\lambda d$	Dominant Wavelength	IF= 20 mA		570		nm

**Electrical Characteristics at Ta=25°C**

Symbol	I <sub>v</sub>		V <sub>F</sub>		λ D	
Parameter	Luminous Intensity		Forward Voltage		Dominant Wavelength	
Condition	IF=20mA		IF=20mA		IF=20mA	
Unit	mcd		V		nm	
Binning	Grade	Range	Grade	Range	Grade	Range
	BIN 9	90~125	C	1.9~2.0	G9	569~571
			D	2.0~2.1	G10	571~573
			E	2.1~2.2	G11	573~575
			F	2.2~2.3		
			G	2.3~2.4		

Intensity: Tolerance of minimum and maximum = ± 15%

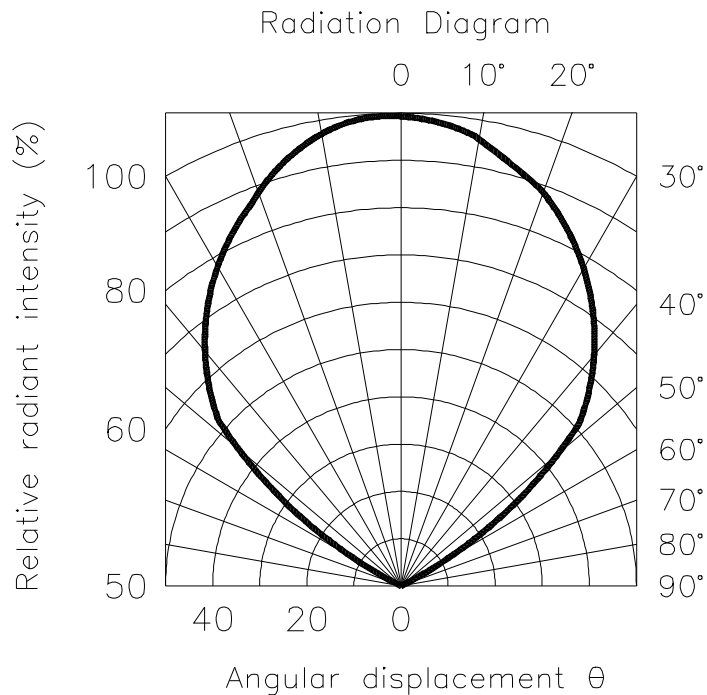
V<sub>f</sub>: Tolerance of minimum and maximum = ± 0.05v

NOTE:

1. Static electricity and surge damages the LED. It is recommend to use a anti-static wrist band or anti-electrostatic glove when handing the LEDs. All devices, equipment and machinery must be properly grounded.
2. Specific binning requirements –please contact our home office

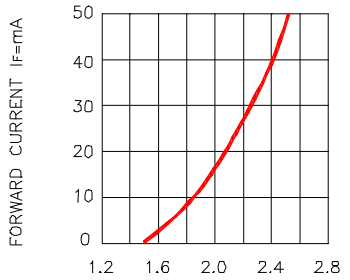
**Radiation Diagram**

**IF=20 mA 50% Power Angle Angle Y=100°**

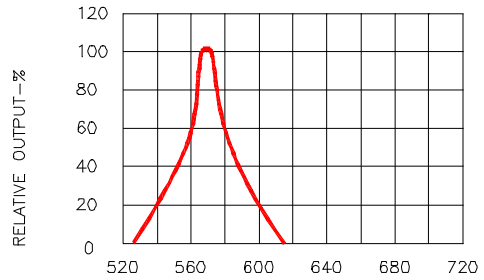


## GREEN

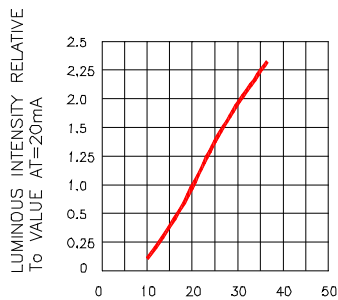
### Typical Electro-optical Characteristic Curves (25°C Free Air Temperature Unless Otherwise Specified)



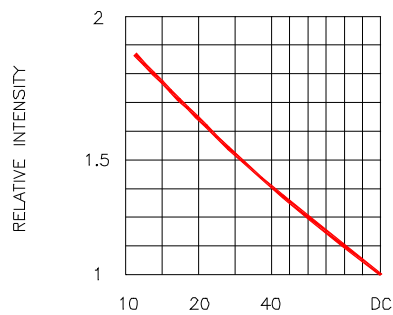
FORWARD VOLTAGE(V<sub>F</sub>)-VOLTS  
Fig.1 FORWARD CURRENT VS FORWARD VOLTAGE



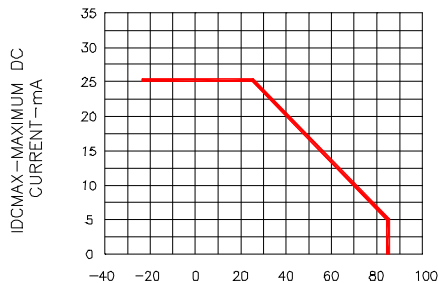
WAVELENGTH(λ)-nm  
Fig.2 SPECTRAL RESPONSE



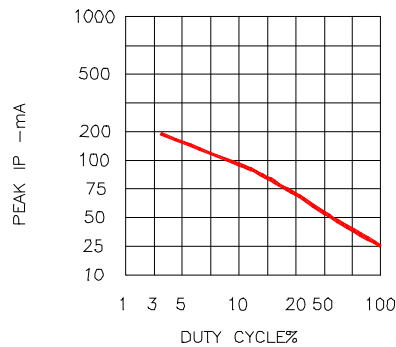
I<sub>F</sub>-FORWARD CURRENT-mA  
Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



DUTY CYCLE% PER SEGMENT (AVERAGE I<sub>F</sub>=10mA)  
Fig.4 LUMINOUS INTENSITY VS.DUTY CYCLE



T<sub>A</sub> AMBIENT TEMPERATURE °C  
Fig.5 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE



DUTY CYCLE%  
Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1KHz)