

Feature

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

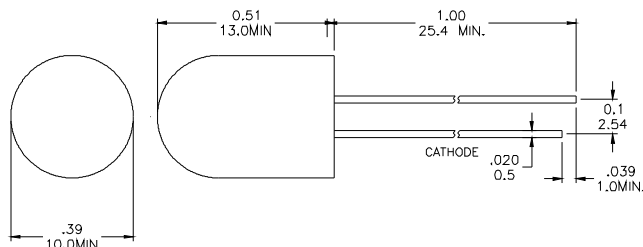
Applications

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

Description

- § These High Intensity LEDs are Based on GaAsP/GaP Material Technology
- § Emitted color: Yellow
- § 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	25	mA
IPF	Peak Forward Current (Duty=0.1, 1kHz)	85	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		30		Deg.
IV	Luminous Intensity	IF= 20 mA		200		mcd.
λp	Peak Wavelength	IF= 20 mA		593		nm
λd	Dominant Wavelength	IF= 20 mA		590		nm



Electrical Characteristics at Ta=25°C

Symbol	I _v		V _F		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
			B	1.8~1.9	Y3	589~591
			C	1.9~2.0	Y4	591~593
			D	2.0~2.1	Y5	593~595
			E	2.1~2.2		
			F	2.2~2.3		
			G	2.3~2.4		

Intensity: Tolerance of minimum and maximum = ± 15%

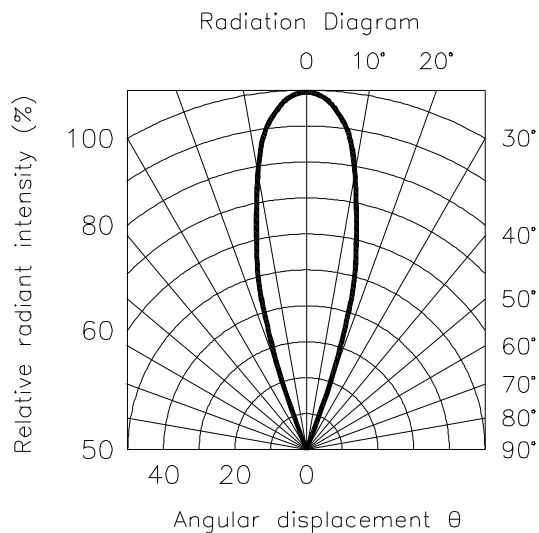
V_F: Tolerance of minimum and maximum = ± 0.05v

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

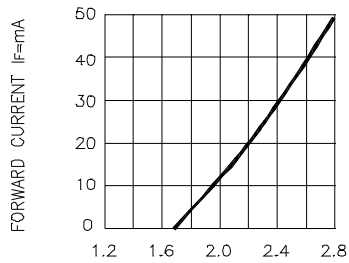
Radiation Diagram

IF=20 mA 50% Power Angle Angle =30°



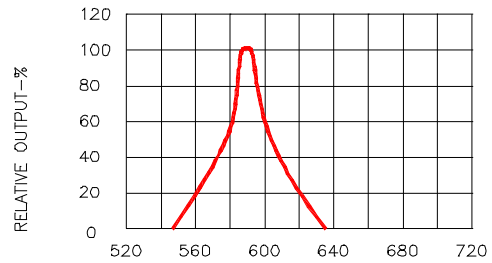
YELLOW

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



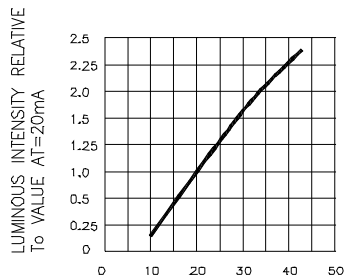
FORWARD VOLTAGE(V_f)—VOLTS

Fig.1 FORWARD CURRENT VS FORWARD VOLTAGE



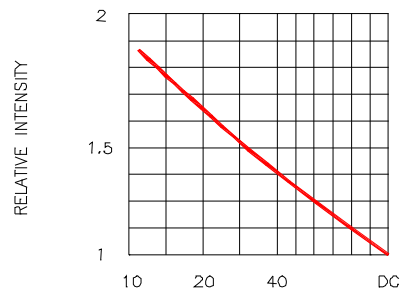
WAVELENGTH(λ)—nm

Fig.2 SPECTRAL RESPONSE



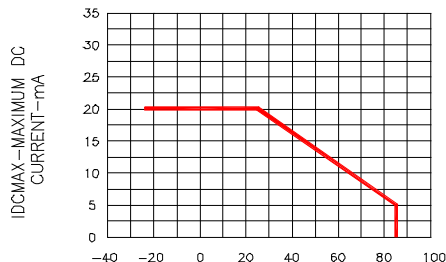
I_f—FORWARD CURRENT—mA

Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



DUTY CYCLE% PER SEGMENT (AVERAGE I_f=10mA)

Fig.4 LUMINOUS INTENSITY VS.DUTY CYCLE



T_a AMBIENT TEMPERATURE °C

Fig .5 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

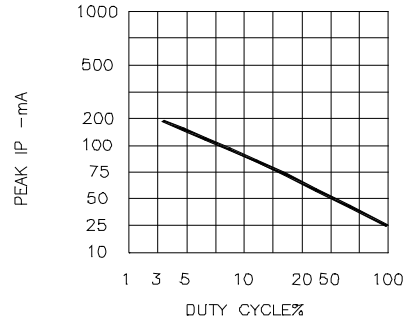


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1KHz)