



## 20W HIGH POWER LED

### OF-HPW-20EL WHITE



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES



#### Features

- Long operating life
- Highest flux
- Wide range of colors:2500K-25000K
- Lambertian radiation pattern
- More energy efficient than incandescent and most halogen lamps
- Low voltage DC operated
- Cool beam, safe to the touch
- Instant light (less than 100ns )
- Fully dimmable
- No UV
- Superior ESD protection
- Eutectic die bonding
- RoHS compliant

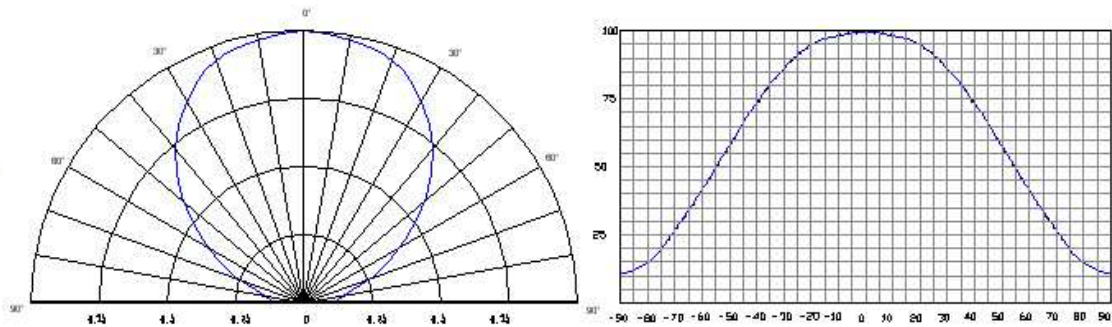
#### Applications

- Reading lights (car, bus, aircraft)
- LCD Backlights/light Guides
- Fiber optic alternative/ Decorative / Entertainment
- Mini-accent/Up lighters/Down lighters/Orientation
- Indoor/Outdoor commercial and Residential Architectural
- Cove/Under shelf/Task
- Bollards/Security/Garden
- Portable (flashlight, bicycle)
- Edge-lit signs (Exit, point of sale)
- Automotive Exit (Stop-Tail-Turn,CHMSL, Mirror Side Repeat)
- Traffic signaling / Beacons / RailCrossing and Wayside



## 20W HIGH POWER LED

### ■ Radiation Pattern



### ■ Typical Optical/ Electrical Characteristics @T<sub>j</sub>=25°C

Item	Symbol	Condition	Min.	Typ.	Mix.	Unit
Forward Voltage	V <sub>F</sub>	IF=1.4A		15		V
Reverse Current	I <sub>R</sub>	VR=5v	--	--	50	uA
50% Power Angle	2θ <sub>1/2</sub>	IF=1.4A	--	140	--	deg
Luminous Intensity	φ <sub>v</sub>	IF=1.4A	700	780	850	lm
Recommend Forward Current	I <sub>F</sub>	--	--	1.4	--	A
Chromaticity	T <sub>c</sub>	IF=1.4A	5000	6000	7000	K
Chromaticity Coordinates	X	IF=1.4A	--	--	--	--
	Y	IF=1.4A	--	--	--	

- Notes:**
- 1.Tolerance of measurement of forward voltage±0.1V.
  - 2.Tolerance of measurement of peak Wavelength±2.0nm.
  - 3.Tolerance of measurement of luminous intensity±15%.



## 20W HIGH POWER LED

### ■ Absolute Maximum Rating

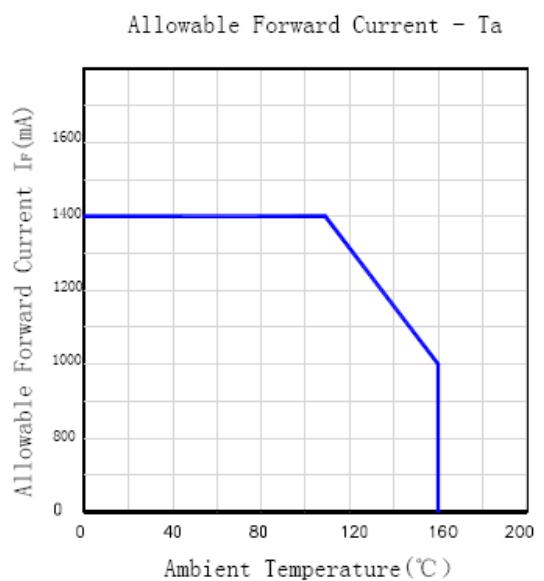
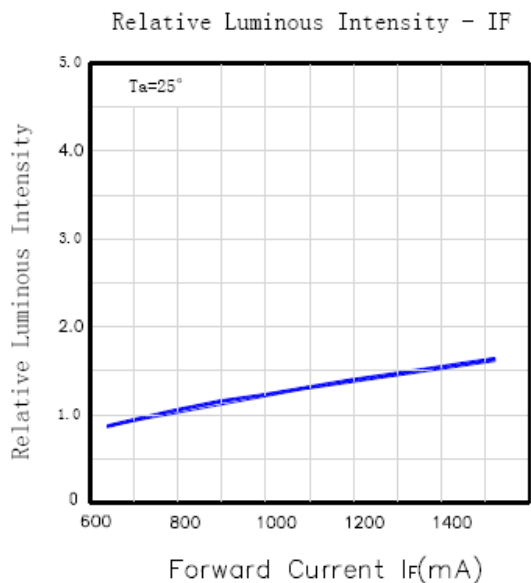
Item	Symbol	Absolute Maximum Rating	Unit
Forward Current	$I_F$	1.4	A
Peak Forward Current*	$I_{FP}$	1.6	A
Reverse Voltage	$V_R$	5	V
Power Dissipation	$P_D$	20	W
Electrostatic discharge	$E_{SD}$	±4500	V
Operation Temperature	$T_{OPR}$	-40~+80	□
Storage Temperature	$T_{STG}$	-40~+100	□
Lead Soldering Temperature*	$T_{SOL}$	Max. 260°C for 6sec Max.	

\*IFP Conditions □ Pulse Width ≤ 10msec duty ≤ 1/10

\* All high power emitter LED products mounted on aluminum metal-core printed circuit board, can be lighted directly, but we do not recommend lighting the high power products for more than 5 seconds without a appropriate heat dissipation equipment.

### ■ Typical Optical/Electrical Characteristics Curves

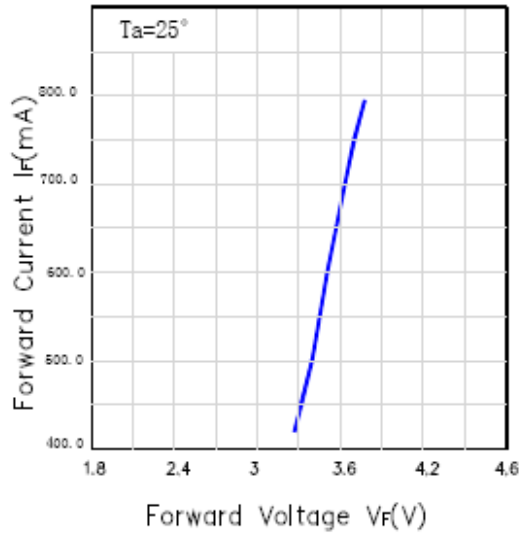
( $T_a=25^\circ\text{C}$  Unless Otherwise Noted )



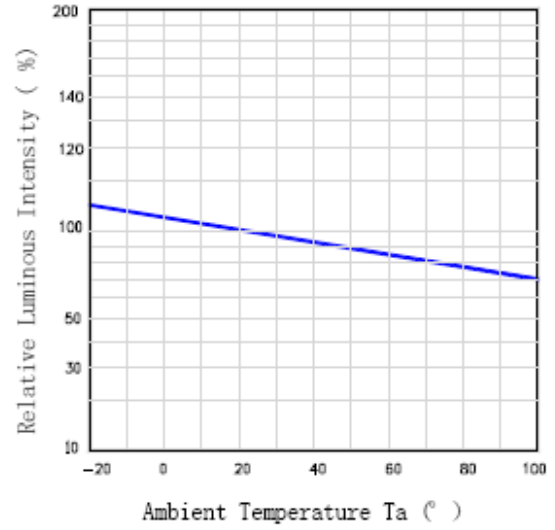


# 20W HIGH POWER LED

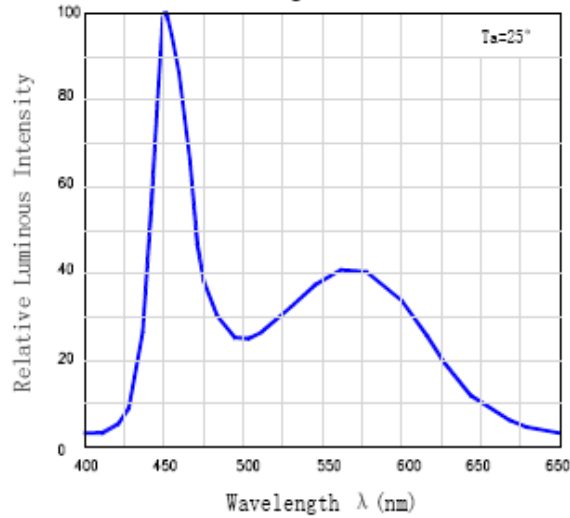
$I_f - V_f$



Relative Luminous Intensity -  $T_a$



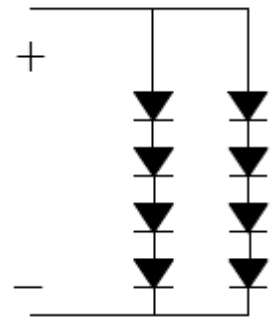
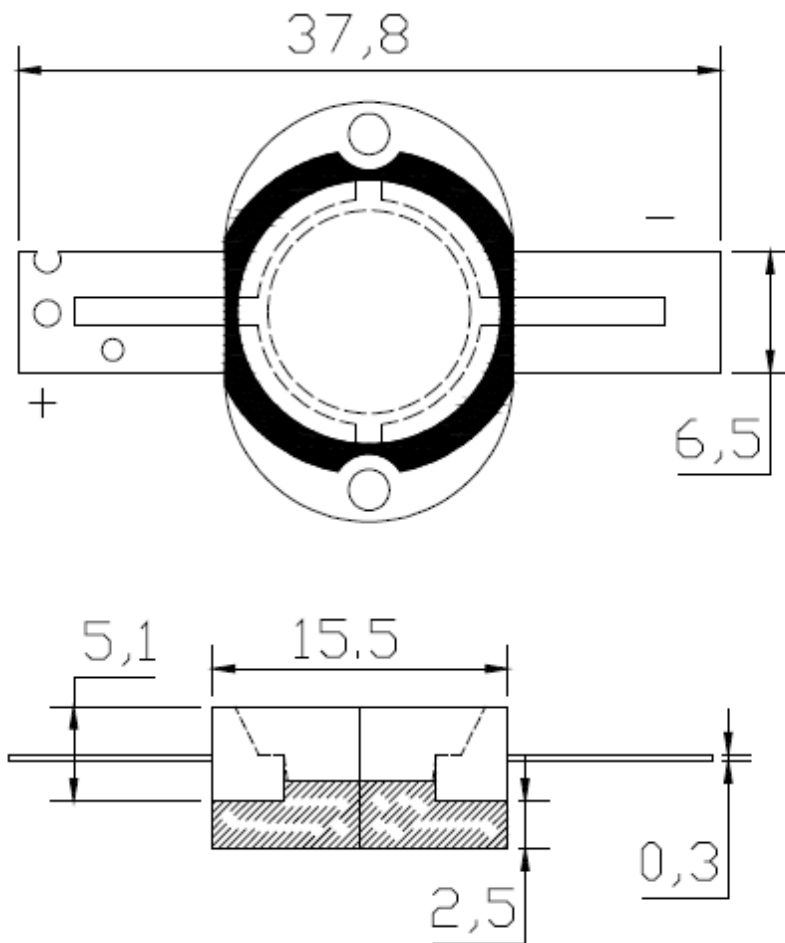
Wavelength Characteristics



## ■ Package Dimensions



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- Notes:**
1. All dimension units are millimeters.
  2. All dimension tolerance is  $\pm 0.2$ mm unless otherwise noted.