



3x1W HIGH POWER LED

OF-HPRGB-1EL RGB



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

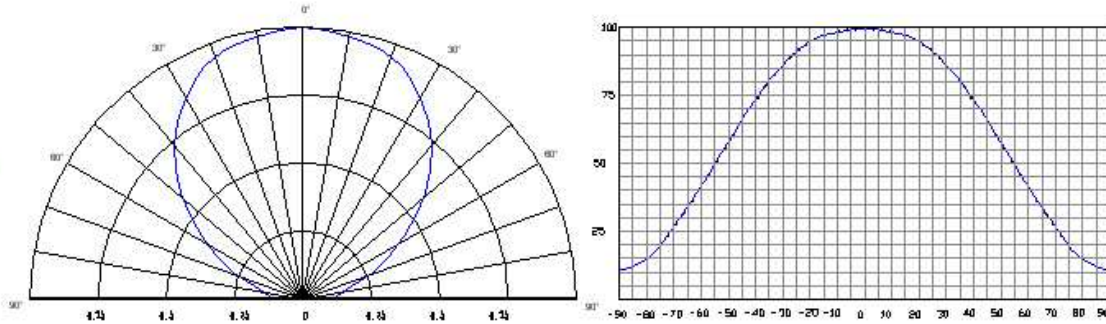
Applications

- 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



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■ Radiation Pattern



■ Typical Optical/ Electrical Characteristics @ $T_a=25^\circ\text{C}$

Item	Symbol	Condition	Min.	Typ.	Mix.	Unit
Forward Voltage	$V_{F(R)}$	$I_F=350\text{mA}$	2.2	2.4	2.6	V
	$V_{F(G)}$		3.0	3.4	3.6	
	$V_{F(B)}$		3.0	3.4	3.6	
Reverse Current	I_R	$V_R=5\text{v}$	--	--	50	μA
50% Power Angle	$2\theta_{1/2}$	$I_F=350\text{mA}$	--	140	--	deg
Luminous Intensity	$\Phi_{V(R)}$	$I_F=350\text{mA}$	23.5	28	39.8	lm
	$\Phi_{V(G)}$		39.8	50	67.2	
	$\Phi_{V(B)}$		4.9	7	8.2	
Recommend Forward Current	I_F	--	--	350	--	mA
Wavelength	$\lambda_d(R)$	$I_F=350\text{mA}$	610	--	645	nm
	$\lambda_d(G)$	$I_F=350\text{mA}$	510	--	550	
	$\lambda_d(B)$	$I_F=350\text{mA}$	440	--	490	
Thermal Resistance, Junction to Case	R_{JP}	$I_F=350\text{mA}$	--	18	--	K/W



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

■ Absolute Maximum Rating

Item	Symbol	Absolute Maximum Rating	Unit
Forward Current	I_F	350	mA
Peak Forward Current*	I_{FP}	500	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	1000	mW
Electrostatic discharge	E_{SD}	± 4500	V
Operation Temperature	T_{OPR}	-40~+80	$^{\circ}C$
Storage Temperature	T_{STG}	-40~+100	$^{\circ}C$
Lead Soldering Temperature*	T_{SOL}	Max. 260 $^{\circ}C$ for 6sec Max.	

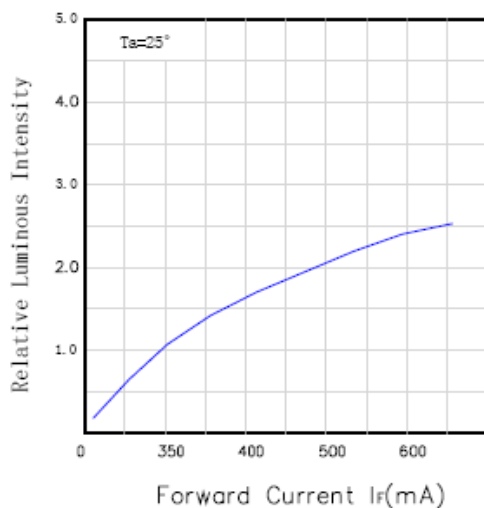
*IFP Conditions □ Pulse Width $\leq 10msec$ duty $\leq 1/10$

* 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.

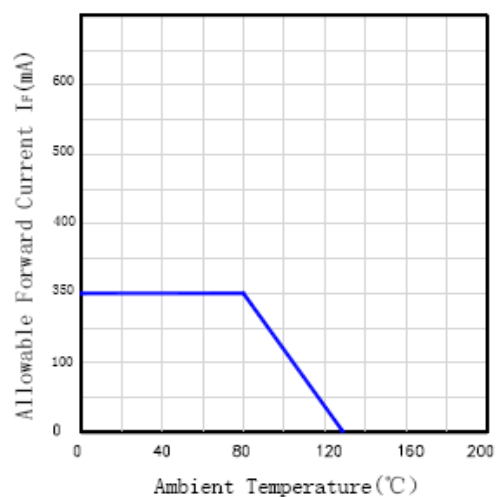
■ Typical Optical/Electrical Characteristics Curves

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

Relative Luminous Intensity - I_F



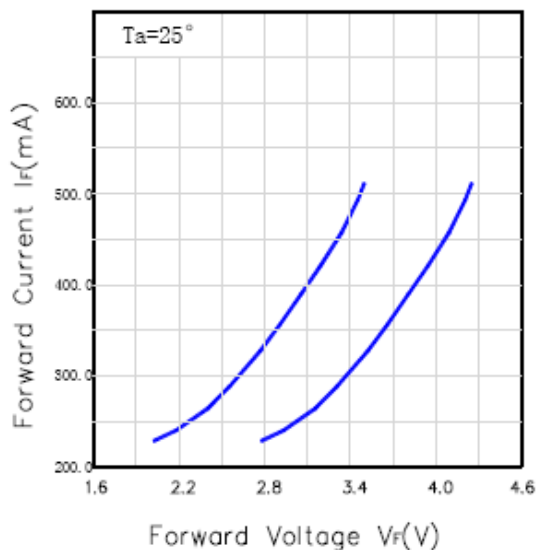
Allowable Forward Current - T_a



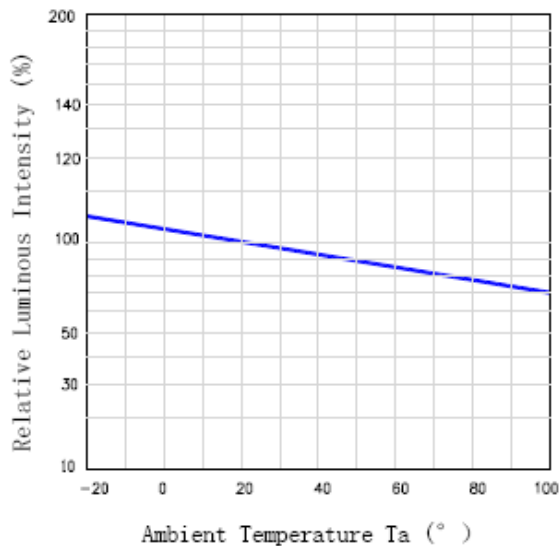


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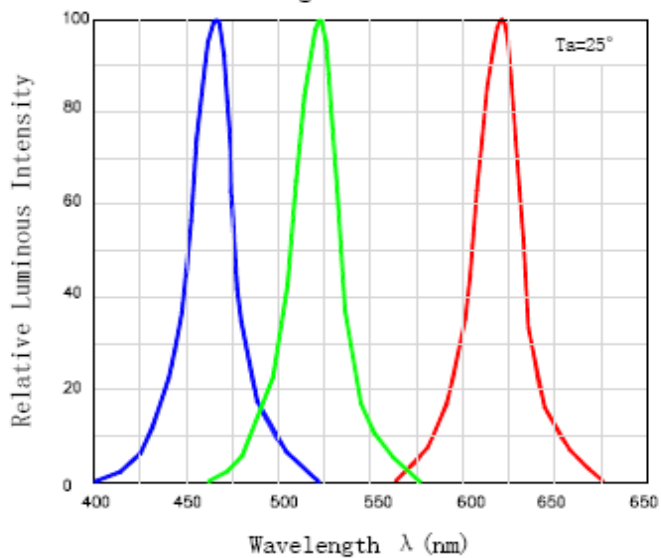
$I_f - V_f$



Relative Luminous Intensity - T_a



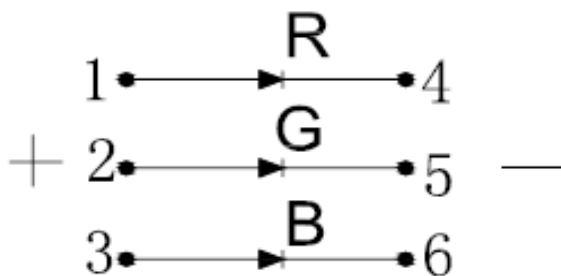
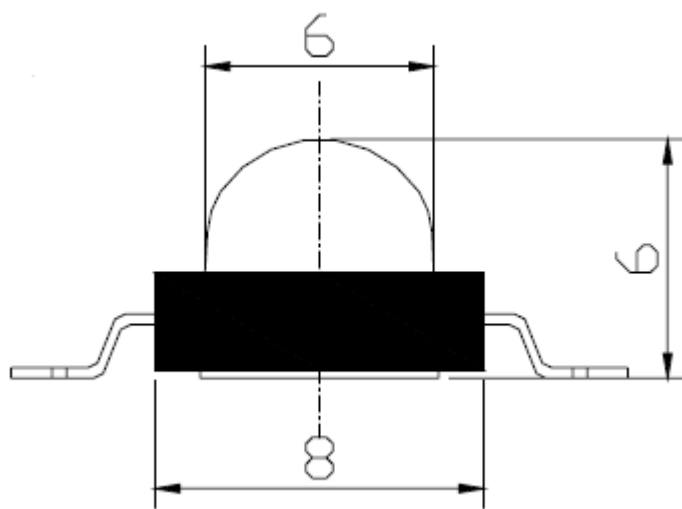
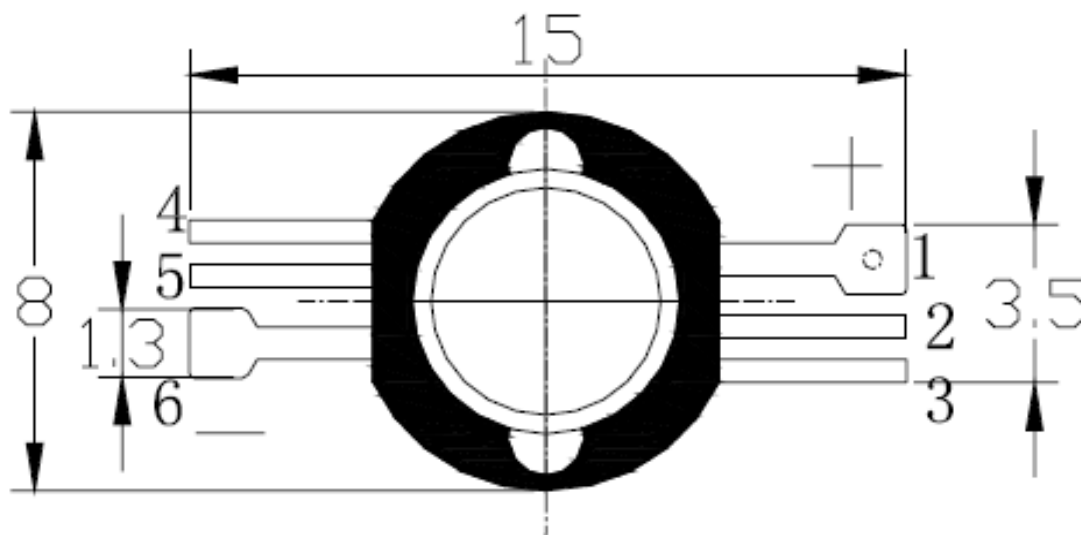
Wavelength Characteristics





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■ Package Dimensions



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