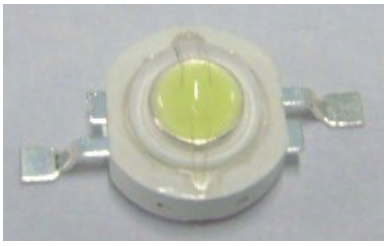
ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

arlight

ARPL-1W White REFLOW (100 Lm, 6500K)



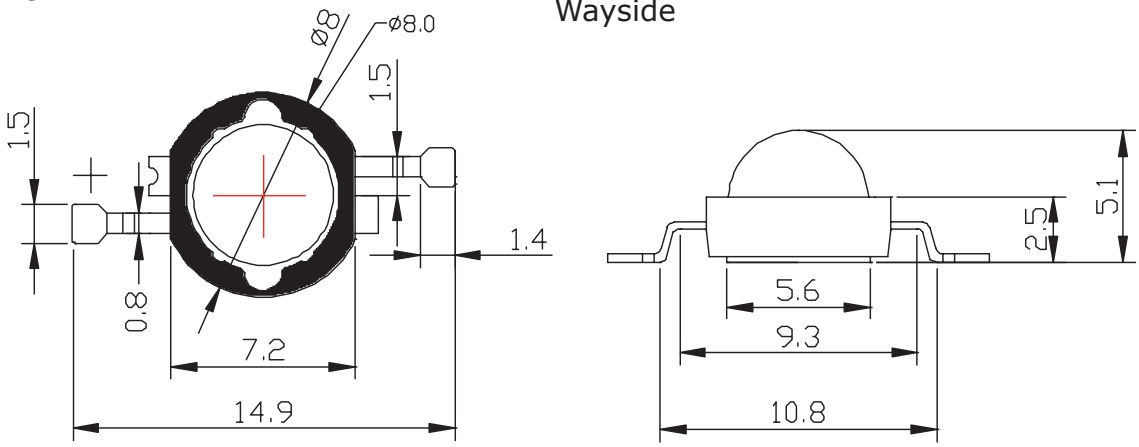
Features

- Long operating life
- Highest flux
- Available in White: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

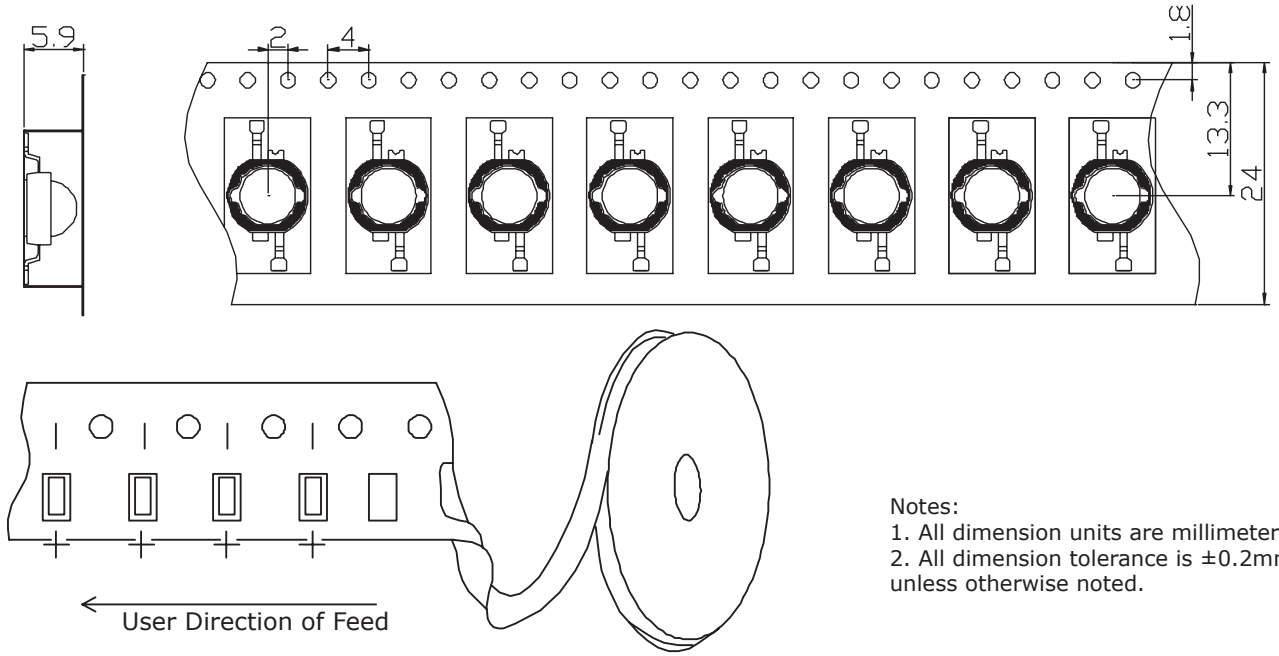
Applications

- Fiber optic altemative/Decorative/entertainment
- Mini-accet/Up lighters/Down lighters/Orientation
- Indoor/Outdoor commerclal and Residentlal Architectural
- Cove/Under shelf/Task
- Bollards/Security/Garden
- Portable (flashlight,bicycle)
- Edge-lit signs (Exit,point of sale)
- Automotive Exit (Stop-Tail-Tum, CHMSL, Mirror Side Repeat)
- Traffic signaling/Beacons/RailCrossing and Wayside

Package Dimensions

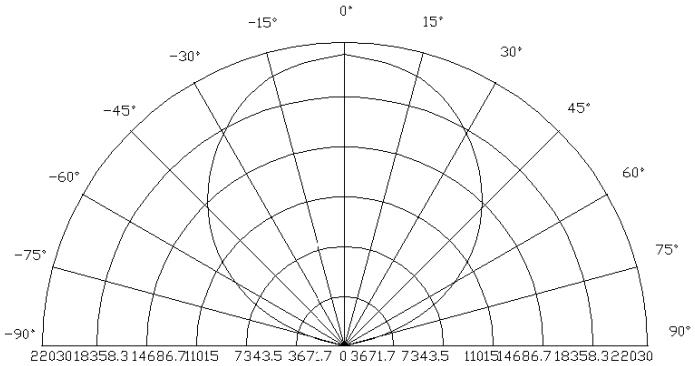


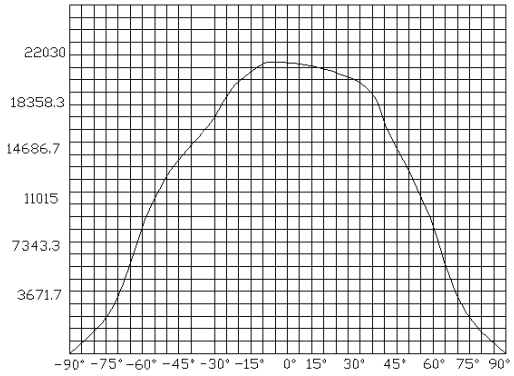
Tape Specifications (Units:mm)



Notes:
1. All dimension units are millimeters.
2. All dimension tolerance is ±0.2mm unless otherwise noted.

Radiation Pattern





Typical Electrical / Optical Characteristics at TA=25°C

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	VF	IF=350mA	3.2	--	3.6	V
Reverse Current	IR	VR=5v	--	--	50	uA
50% Power Angle	2θ1/2	IF=350mA	130	--	160	deg
Luminous Intensity	φV	IF=350mA	100		110	lm
Recommend Forward Current	IF	- -	--	350	--	mA
Chromaticity	Tc	IF=350mA	5500		7000	k
Thermal Resistance, Junction to Case	RJP	IF=350mA	--	10	--	°C/W

The sample delivers goods data						
Item	**Symbol**	**Condition**	**Min.**	**Avg.**	**Max.**	**Unit**
Luminous Intensity	φV	IF=350mA				lm
50% Power Angle	2θ1/2					deg
Forward Voltage	VF					v
Chromaticity	Tc					k
White Color Region	--					
ChromaticityCoordinates	X=--			Y=--		

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%.

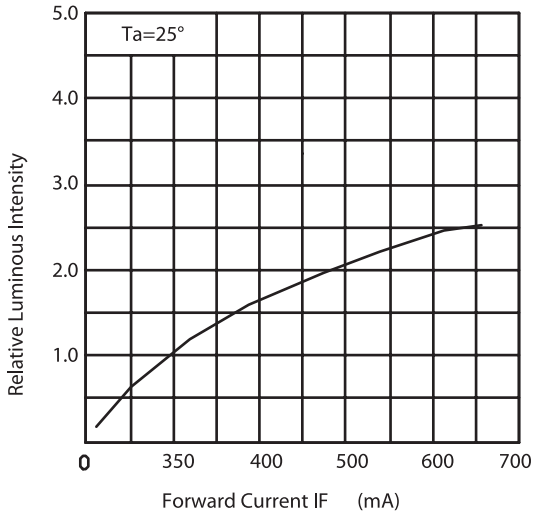
Absolute Maximum Rating

Item	Symbol	Absolute Maximum Rating	Unit
Forward Current	IF	350	mA
Peak Forward Current*	IFP	500	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD	1000	mW
Electrostatic discharge	ESD	±2000	V
Operation Temperature	TOPR	-40~+80	°C
Storage Temperature	TSTG	-40~+100	°C
Lead Soldering Temperature*	TSOL	Max. 260°C for 3sec Max.	

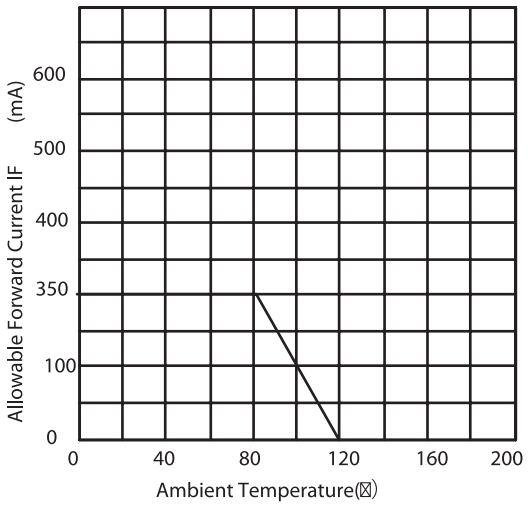
*IFP Conditions: Pulse Width≤10msec duty≤1/10
* All high power emitter LED products mounted on aluminum metal-core printed circuit board, can be lighted directly, but we do not recommend lighting the high power products for more than 5 seconds without a ap-propriate heat dissipation equipment.

Typical Optical / Electrical Characteristics Curves
(TJ=25°C Unless Otherwise Noted)

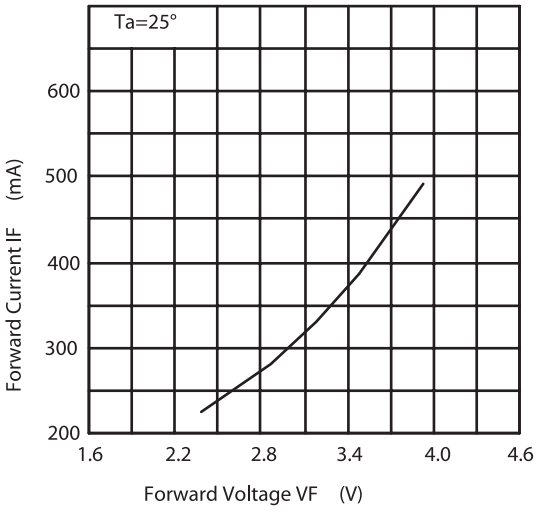
Relative Luminous Intensity - IF



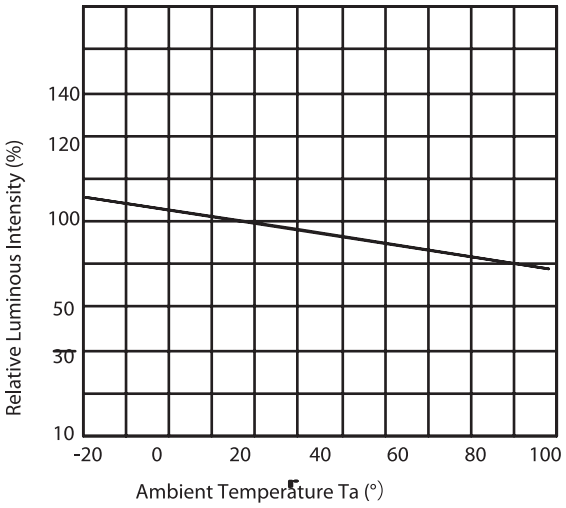
Allowable Forward Current - Ta



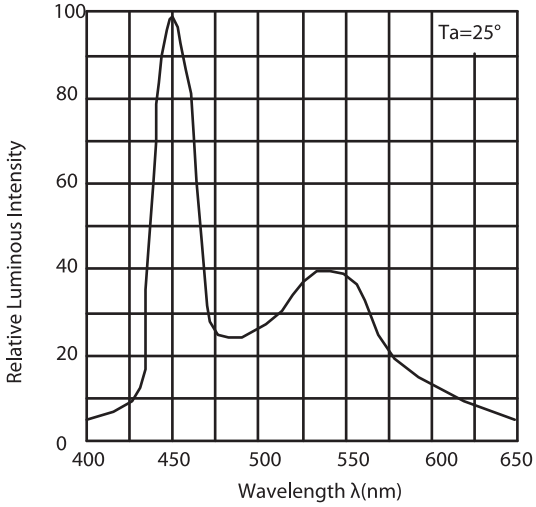
IF - VF



Relative Luminous Intensity - Ta

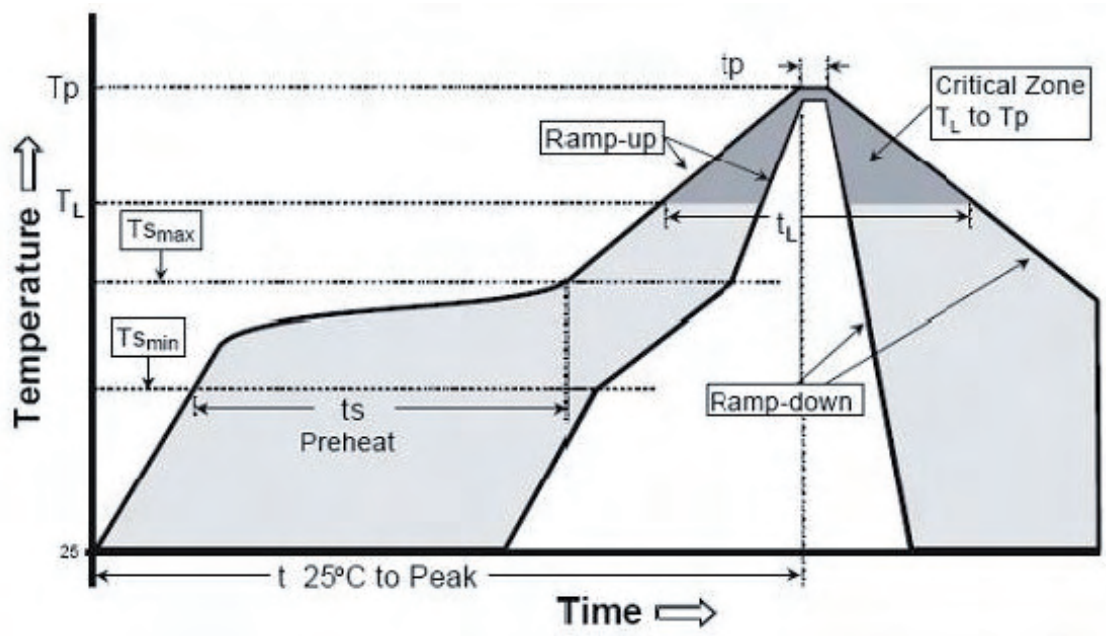


Wavelength Characteristics



Soldering

Manual of Soldering
The temperature of the iron tip should not be higher than 260°C (500°F)and Soldering within 3 seconds Per solder-lands is to be observed.
Reflow soldering:(All temperatures refer to topside of package,measured on the package body surface).



Profile Feature	Lead-Based solder	Lead-Free Solder
Average Ramp-Rate (Tsmaxto TP)	3°C/second max	3°C/second max
Preheat: Temperature Min (Tsmin)	100°C	150°C
Preheat: Temperature Max (Tsmax)	150°C	200°C
Preheat: Time (tsminto tsmax)	60-120 seconds	60-180 seconds
Time Maintained Above: Temperature (TL)	183°C	217°C
Time Maintained Above: Time (TL)	60-150 seconds	60-150 seconds
Peak/chlassiflcation Temperature (Tp)	215°C	260°C
Time within 5 of Actual peak Temperature (Tp)	10-15 seconds	20-40 second max
Ramp-Down Rate	6°C/second max	6°C/second max
Time 25°C to Peak Temperature	6 minutes max	8 minutes max

Caution:
1.reflow solding should not be done more than one time
2.Repairing should not be done after the LEDs have been soldered. When repairing is unavoidable
Tools have to be used.
3.die slug is to solderd.
4.when solding,do not put stress on the LEDs during heating.
5.after soldering,do not warp the circuit board.
6.recommend to use a convection type reflow machine with 7~8 zones.

Precaution for use

1.Storage

To avoid the moisture penetration,we recommend storing K series LEDs in a dry box (or desic-cator) with a desiccant.The recommended conditions are Temperature 5 to 30 de-grees Centi-grade.Humidity 60% maxi-mum.

2.Precaution after opening packing

2.1.Solding should be done right after opening the package (within 24Hrs).

2.2.Keeping of a fraction.

-Sealing

-Temperature: 5~30°C Humidity:less than 30%

2.3.If the package has been opered than 1 week or the color of desiccant changes,components should be Dried for 10-12Hr at 60±5°C.

3.Any mechanical force or any excess vibration shall not be accepted to apply during cooling process to normal Temperature after solding.

4.Please avoid rapid cooling after solding.

5.Componets should not be moumted on warped direction of PCB.

6.This device should not be used in any of fluid such as water,oil,organic s olvent and etc. When washing is reauired, IPA (Isopropyl Alcohol) should be used.

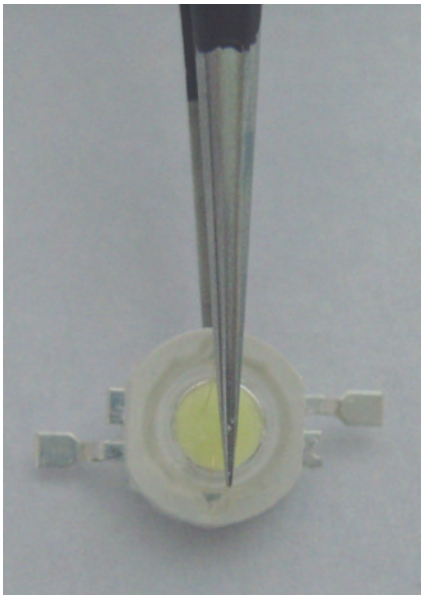
7.When the LEDs are illuminating, operating current should be decide after considering the package maxi-mum temperature.

8.Avoid touching Lens parts especially by sharp tools such as pincette.

9.Please do not force over 1000 gf impact or pressure diagonally on the sillcon lens. It will cause fatal Dam-age of this product.

10.Please do not recommend to cover the sillcone resin of the LEDs with other resin.

OK



NG