



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

**arlight**

## ARPL-1W Red (ER1E)



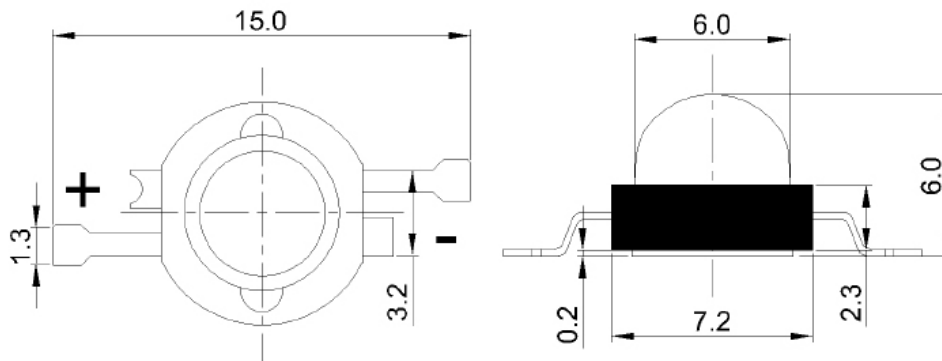
### Features

- Highest flux per LED family in the world
- Very long operating life (up to 100k hours)
- Available in Red
- Lambertian radiation pattern
- More energy efficient than incandescent and most halogen lamps
- Low voltage DC operated
- Cool beam, safe to the touch
- Fully dimmable
- No UV
- Superior ESD protection
- Eutectic die bonding
- RoHS compliant—leadfree
- Instant light (less than 100ns)

### Applications

- Portable (flashlight, bicycle)
- Reading lights(car, bus, aircraft)
- Orientation
- Miniaccent
- Decorative
- Fiber optic alternative
- Appliance
- Sign and channel letter
- Architectural detail
- Cove lighting
- Automotive exterior (Stop/Tail/turn, CHMSL, Mirror side repeat)
- Edgelit signs (Exit, point of sale)

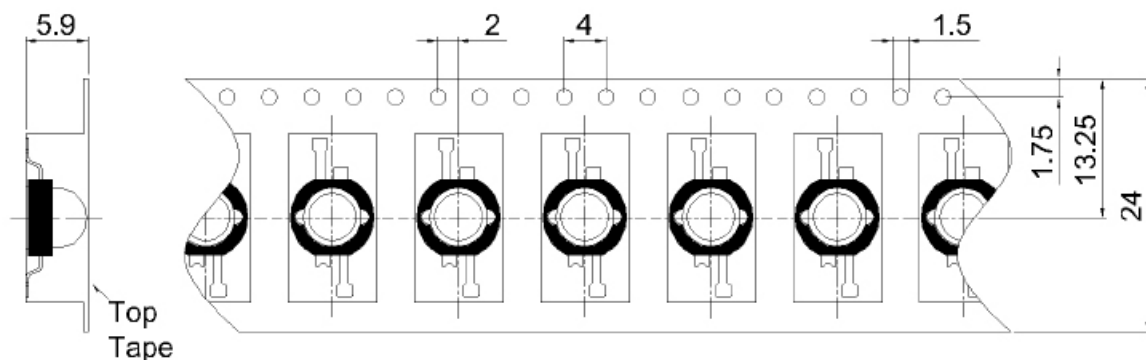
### Package Dimensions



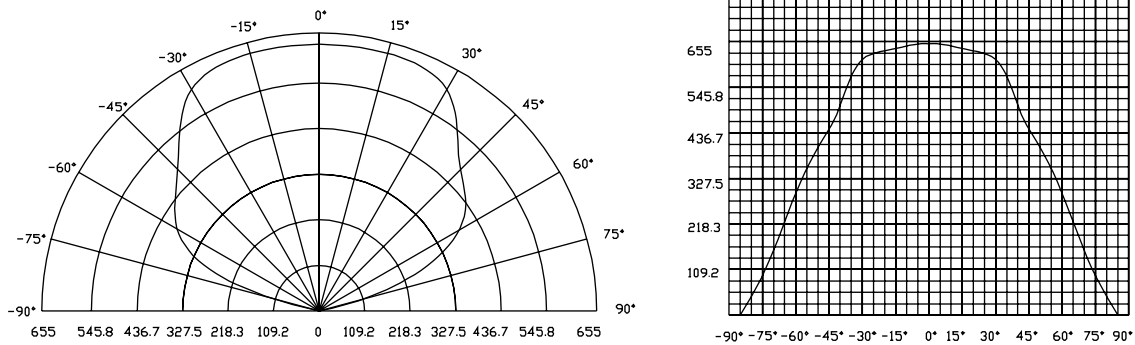
Notes:

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

### Tape Specifications (Units:mm)



## Radiation Pattern



## Typical Electrical / Optical Characteristics at TA=25°C

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	VF	IF=350mA	2.0	--	2.8	V
Reverse Current	IR	VR=5v	--	--	50	uA
50% Power Angle	2θ1/2	IF=350mA	110	--	140	deg
Luminous Intensity	φV	IF=350mA	18.1	--	34.9	lm
Recommend Forward Current	IF	--	--	--	350	mA
Wave Length	λd	IF=350mA	620	--	630	nm
Thermal Resistance, Junction to Case	RJP	IF=350mA	--	20	--	°C/W

### 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	±4500	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 appropriate heat dissipation equipment.

\* Re-flow,wave peak and soak-stannum soldering etc.is not suitable for this products.

\* Suggest to solder it by professional high power LED soldering machine.

\* Can use invariable-temperature searing-iron with soldering condition:≤260 degree less than 3 seconds.

# Typical Optical/Electrical Characteristics Curves

(T<sub>J</sub>=25°C Unless Otherwise Noted)

