

◆ Features

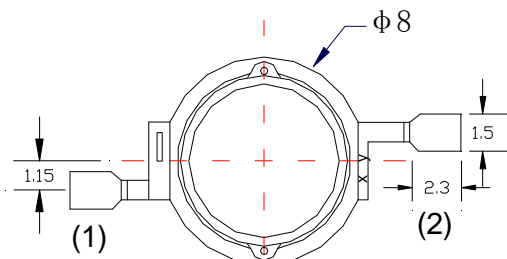
- * Small package with high efficiency
- * Designed for high current operation
- * Low voltage operation, Instant light, Long operation life
- * Lead free product
- * RoHS compliant



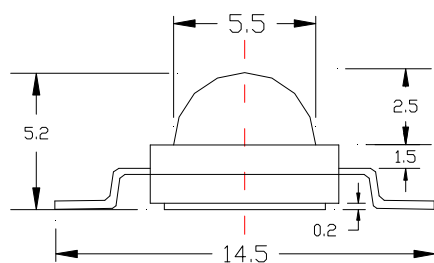
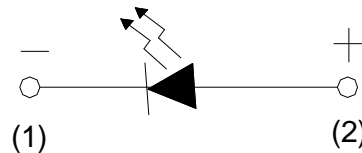
◆ Applications:

- * Mobile phone flash
- * Automotive interior/Exterior lighting
- * Automotive forward lighting
- * Architectural lighting
- * LCD TV / Monitor backlight
- * Projector light source
- * Traffic signals
- * Task lighting
- * Decorative/ Pathway lighting
- * Remote / Solar powered lighting
- * Household appliances

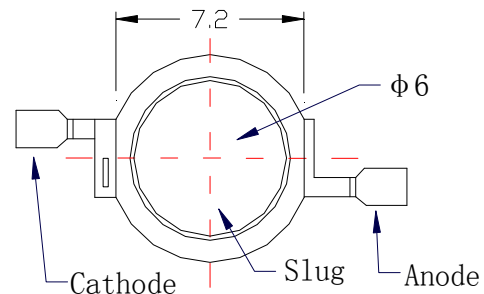
◆ Package Dimensions



Top View



Side View



Bottom View

Notes:

1. All dimensions are in mm,
2. Tolerance is ± 0.3 mm unless otherwise noted.

◆ Absolute Maximum Ratings (T_A=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation (功耗)	P _D	1	W
Forward Current (正向电流)	I _F	350	mA
Peak Forward Current* (脉冲峰值电流)	I _{FP}	700	mA
Junction temperature (有限最高结温)	T _j	120	°C
Operation Temperature Range (工作温度)	T _{opr}	-30 to +80	°C
Storage Temperature Range (贮藏温度)	T _{stg}	-40 to +80	°C
Thermal resistance (有效热阻参考)	R _{J-B}	8	°C/W
ESD Sensitivity (HBM) (抗静电级别)	--	2000	V
Hand Soldering Temperature (手工焊接温度)	350 ± 20°C/3~5sec		

NOTE: * Pulse width ≤ 0.1msec Duty Ratio ≤ 1/10

◆ Electrical-Optical Characteristics (T_A=25°C)

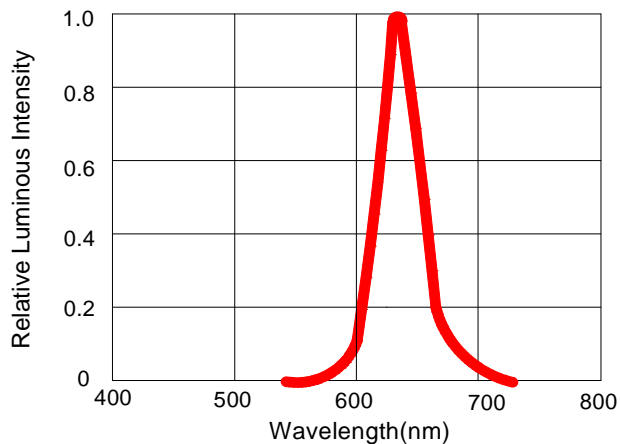
Parameter	Test Condition	Symbol	Min	Typ	Max	Unit
Forward Voltage	I _F =350mA	V_F	2.0		2.6	V
Reverse Current	V _R =-5V	I_R			5	μA
View Angle	--	2Θ 1/2		140		deg.
Luminous flux	I _F =350mA	Φ_v	50		60	lm
Color Temperature	I _F =350mA	Λ _{dom}	620		625	nm

Note:

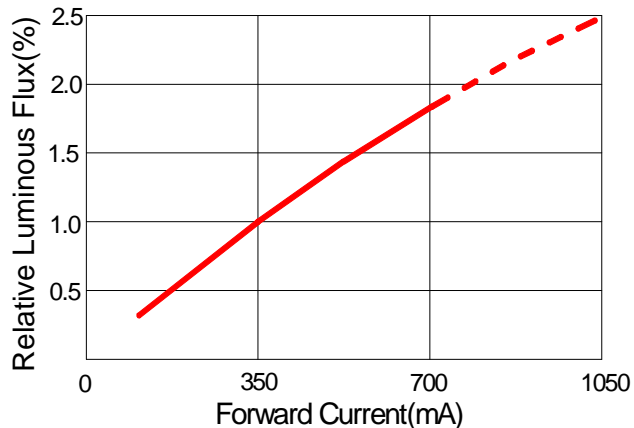
- | | |
|--|--------|
| 1. Tolerance of measurement of luminous flux | ±10% |
| 2. Tolerance of measurement of CCT | ±5% |
| 3. Tolerance of measurement of chromatic coordinates | ±0.005 |
| 4. Tolerance of measurement of forward voltage | ±0.05V |

◆ Typical Electrical/Optical Characteristic Curves (If=350mA; TA=25°C)

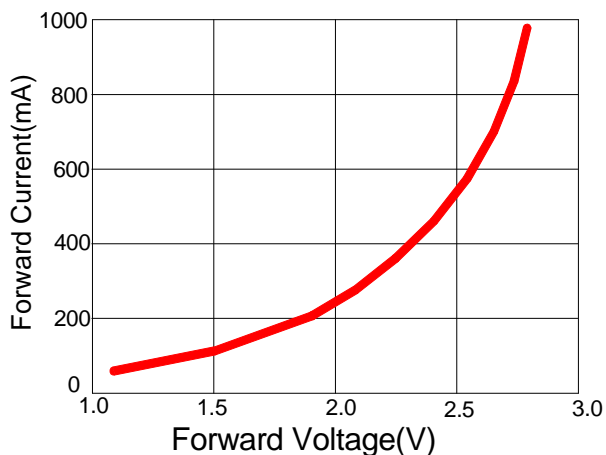
Relative Spectral Distribution



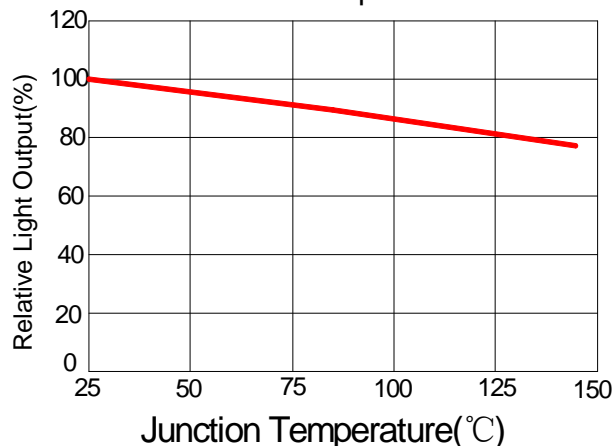
Relative Luminous Flux VS Forward Current



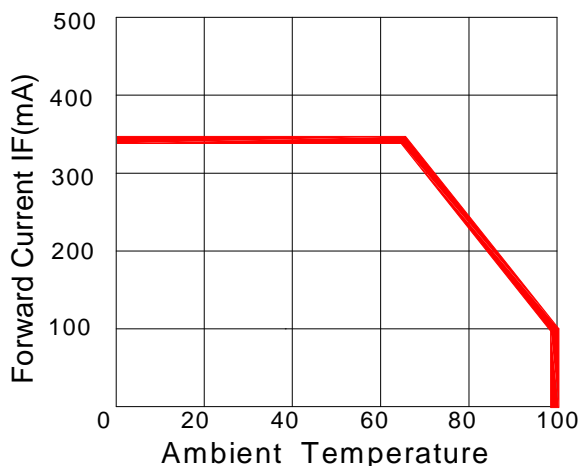
Forward Current VS Forward Voltage



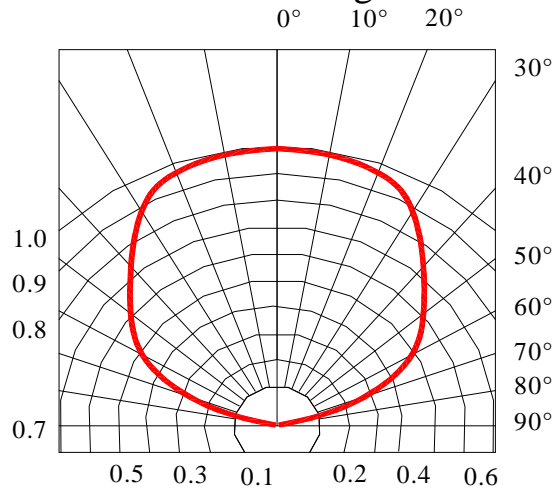
Relative Light Output VS Junction Temperature



Ambient Temperature VS. Forward Current



Radiation Diagram



◆ Reliability

1. Test Items And Results

Item	Standard Test Method	Test conditions	Note	Number of Damaged
Resistance to Soldering Heat	JEITA ED-4701 300 302	T _{SLD} :160°C±5°C 10sec	1 time	0/30
Solder ability	JEITA ED-4701 300 303	TSLD=150±5°C,5Sec	1time	0/30
Thermal Shock	JEITA ED-4701 300 307	-40-100°C 10min, 10min	100cycles	0/30
Temperature Cycle	JEITA ED-4701 100 105	-40°C~25°C~100°C~25°C 30min. 5min. 30min.5min	160cycles	0/30
Terminal Strength (Pull test)	JEITA ED-4701 400 401	Load 10N(1kgf) 10±1sec	None Damage	0/30
Terminal Strength (bending test)	JEITA ED-4701 400 401	Load 5N(0.5kgf) 0° ~90° ~0° bend 2 times	None Damage	0/30
Temperature Humidity Storage	JEITA ED-4701 100 103	Ta=60°C,RH=90%	1000hrs	0/30
Steady State Operating life	--	Ta=25°C,IF=350mA	1000hrs	0/30
Steady State Operating life of High Humidity Heat	--	Ta=60°C RH=90%,IF=350mA	1000hrs	0/30
High Temperature Storage	JEITA ED-4701 200 201	Ta=100°C	1000HRS	0/30
Low Temperature Storage	JEITA ED-4701 200 202	Ta=-40°C	1000HRS	0/30

2. Criteria for Judging The Damage

Item	Symbol	Test Conditions	Criteria for Judgment	
			Min.	Max.
Forward Voltage	V _F	I _F =350 mA	---	Initial Data x1.1
Luminous Intensity	I _V	I _F =350 mA	Initial Data x 0.9	---
Reverse Current	I _R	V _R = 5V	---	≦5μA