

PRELIMINARY SPEC

Part Number: LT-019-54V01-A

Blue



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Features

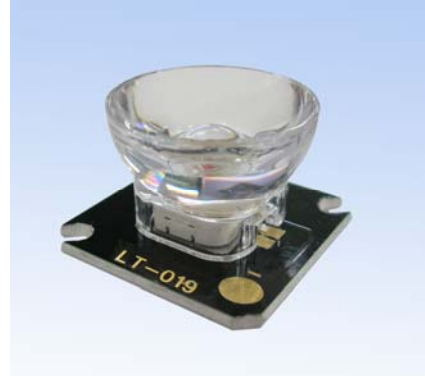
- Super high flux output and high luminance.
- Designed for high current operation.
- Low thermal resistance.
- Low voltage DC operated.
- Superior ESD protection.
- Not reflow compatible.
- The component is internally protected with silicone gel.
- Viewing angle: 15°.
- Hard lens.
- RoHS compliant.

Application Note

Static electricity and surge damage the LEDs.

It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

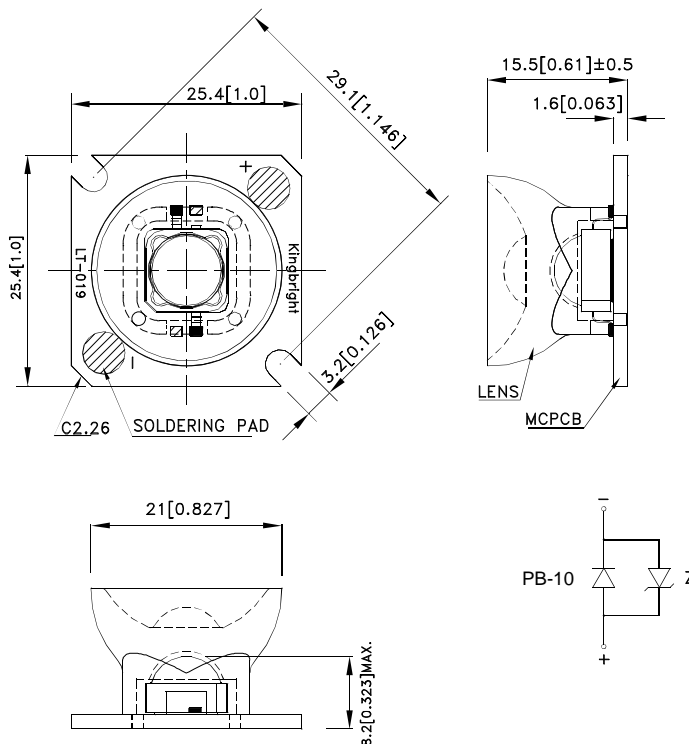
All devices, equipment and machinery must be electrically grounded.



Applications

- Entertainment lighting.
- Architectural lighting.
- Landscape lighting.
- Local & stress lighting.
- Bank / hotel / meeting room lighting.
- Interior commercial lighting.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
3. Specifications are subject to change without notice.



Selection Guide

Part No.	Dice	Lens Type	Φ_v (lm) [2] @ 1200mA	Viewing Angle [1]
			Typ.	2 θ 1/2
LT-019-54V01-A	Blue (InGaN)	WATER CLEAR	35	15°

Notes:

1. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. Luminous intensity/ luminous Flux: +/-15%.

Absolute Maximum Ratings at T_A=25°C

Parameter	Symbol	Value	Unit
Power dissipation	P _t	5	W
Junction temperature	T _J	110	°C
Operating Temperature	T _{op}	-40 To +100	°C
Storage Temperature	T _{stg}	-40 To +100	°C
DC Forward Current [1]	I _F	1200	mA
Peak Forward Current [2]	I _{FM}	1500	mA
Thermal resistance [1]	R _{th j-slug}	9	°C/W
Electrostatic Discharge Threshold (HBM)		8000	V

Notes:

1. Results from mounting on MCPCB.
2. 1/10 Duty Cycle, 0.1ms Pulse Width.

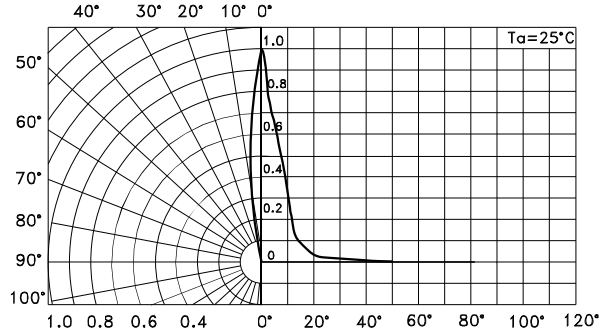
Electrical / Optical Characteristics at T_A=25°C

Parameter	Symbol	Value	Unit
Wavelength at peak emission I _F =1200mA [Typ.]	λ_{peak}	465	nm
Dominant Wavelength I _F =1200mA [Typ.]	λ_{dom} [1]	470	nm
Spectral bandwidth at 50% $\Phi_{REL MAX}$ I _F =1200mA [Typ.]	$\Delta\lambda$	25	nm
Forward Voltage I _F =1200mA [Min.]	V _F [2]	4.0	V
Forward Voltage I _F =1200mA [Typ.]		4.5	
Forward Voltage I _F =1200mA [Max.]		5.1	
Temperature coefficient of λ_{peak} I _F =1200mA, -10°C ≤ T ≤ 100°C [Typ.]	TC _{λ_{peak}}	-0.2	nm/°C
Temperature coefficient of λ_{dom} I _F =1200mA, -10°C ≤ T ≤ 100°C [Typ.]	TC _{λ_{dom}}	-0.1	nm/°C
Temperature coefficient of V _F I _F =1200mA, -10°C ≤ T ≤ 100°C [Typ.]	TC _V	-4.2	mV/°C

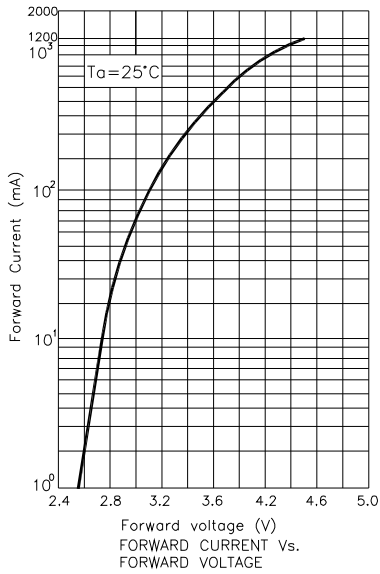
Notes:

1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

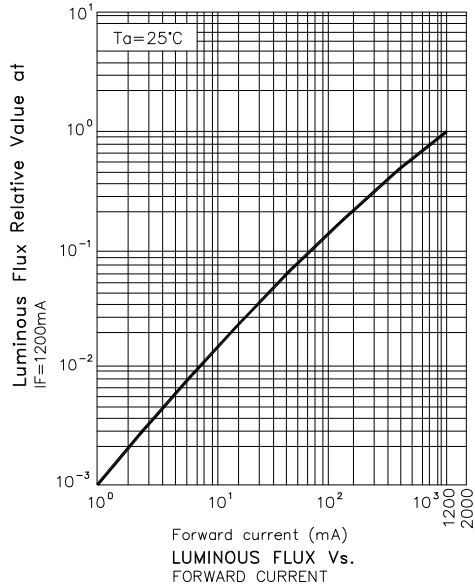
LT-019-54V01-A



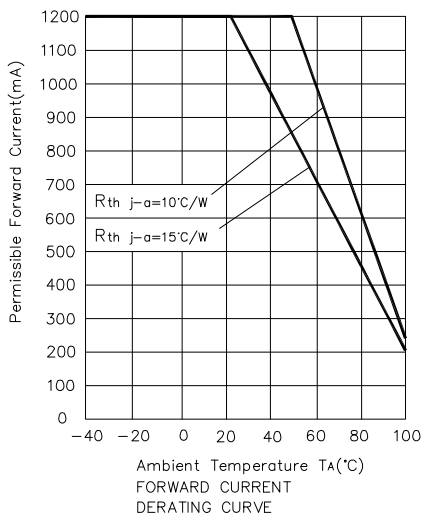
SPATIAL DISTRIBUTION



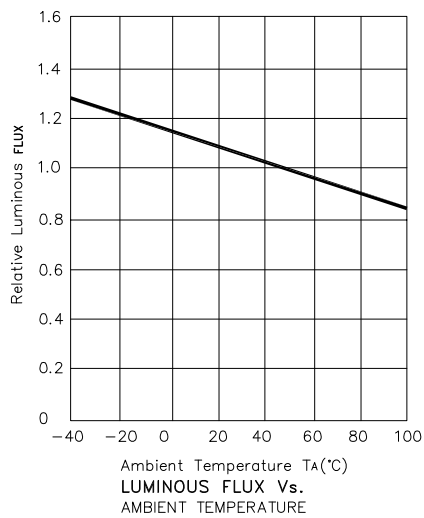
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS FLUX Vs. FORWARD CURRENT



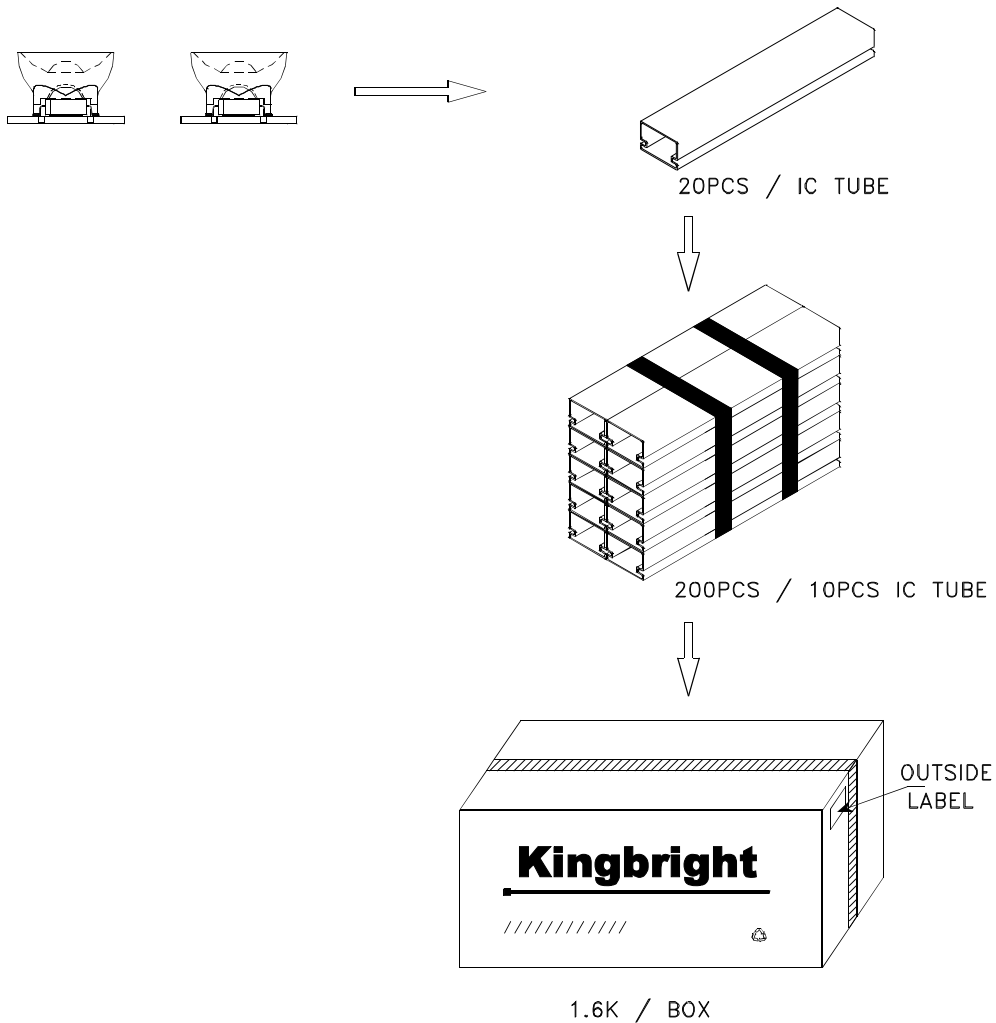
FORWARD CURRENT DERATING CURVE




LUMINOUS FLUX Vs. AMBIENT TEMPERATURE

PACKING & LABEL SPECIFICATIONS

LT-019-54V01-A



<h2>Kingbright</h2>	
P/NO: LT-019xxx	
QTY: 200 pcs	Q.C. Q C XX XX. XXXX PASSED
S/N: XXXX	
CODE: XX	
LOT NO:  XXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	