

PRELIMINARY SPEC

Part Number: KAS-4805QBFS/3

Blue



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Description

The package containing fifteen chips is capable of providing high brightness.

High thermal dissipation efficiency is achieved by incorporating aluminium as reflector and also substrate to ensure long operating life.

The Blue source color devices are made with AlInGaN on Al₂O₃ substrate Light Emitting Diode.

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.

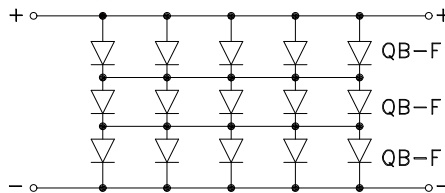
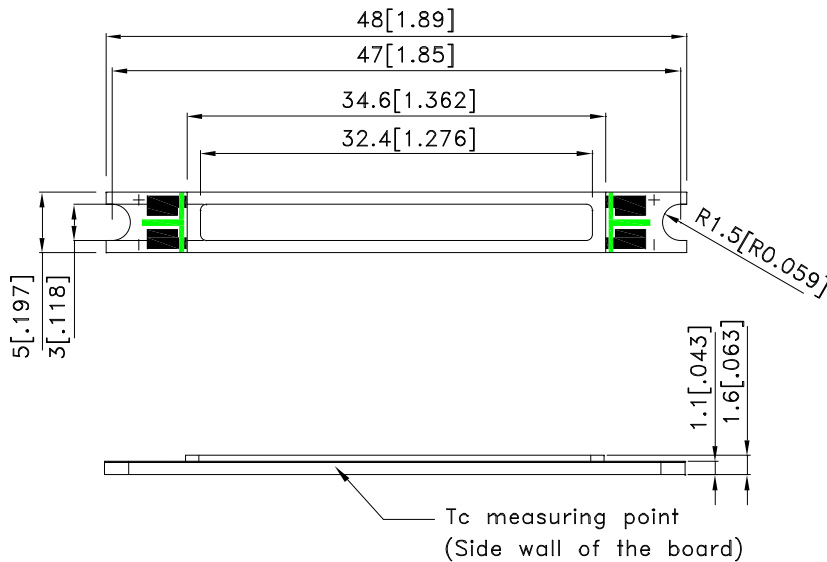
Features

- DIMENSION: 48mm X 5mm X 1.6mm.
- INSTANT LIGHT.
- LINEAR TYPE.
- HIGH EFFICIENCY.
- LONG OPERATING LIFE.
- LOW POWER CONSUMPTION.
- MORE ENERGY EFFICIENT THAN INCANDESCENT, MOST HALOGEN LAMPS, AND FLUORESCENT LAMP.
- RoHS COMPLIANT.

Applications

- Ceiling lights.
- Contour lights.
- Decoration lights.
- General lighting.
- Architectural 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.

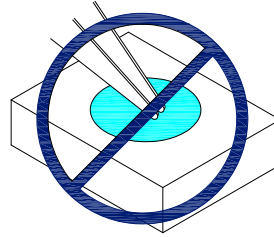
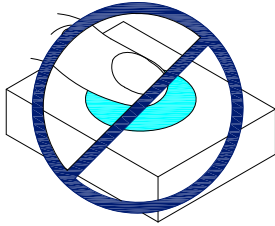


Handling Precautions

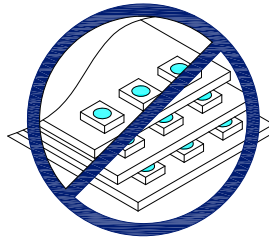
Compare to epoxy encapsulant that is hard and brittle, silicone is softer and flexible. Although its characteristic significantly reduces thermal stress, it is more susceptible to damage by external mechanical force.

As a result, special handling precautions need to be observed during assembly using silicone encapsulated LED products. Failure to comply might leads to damage and premature failure of the LED.

1. Do not directly touch or handle the silicone lens surface. It may damage the internal circuitry.



2. Do not stack together assembled PCBs containing exposed LEDs. Outside impact may scratch the silicone lens or damage the internal circuitry.



Absolute Maximum Ratings

Parameter	Symbol	Rating	Units
Forward Current	I _F	350	mA
Forward Pulse Current [1]	I _{FP}	500	mA
Power Dissipation	P _d	4.38	W
LED Junction Temperature	T _j	110	°C
Operating Temperature	T _{opr}	-30~+100	°C
Storage Temperature	T _{stg}	-40~+120	°C
Case Temperature	T _c	100	°C

Note:

- 1/10 Duty Cycle, 0.1ms Pulse Width.

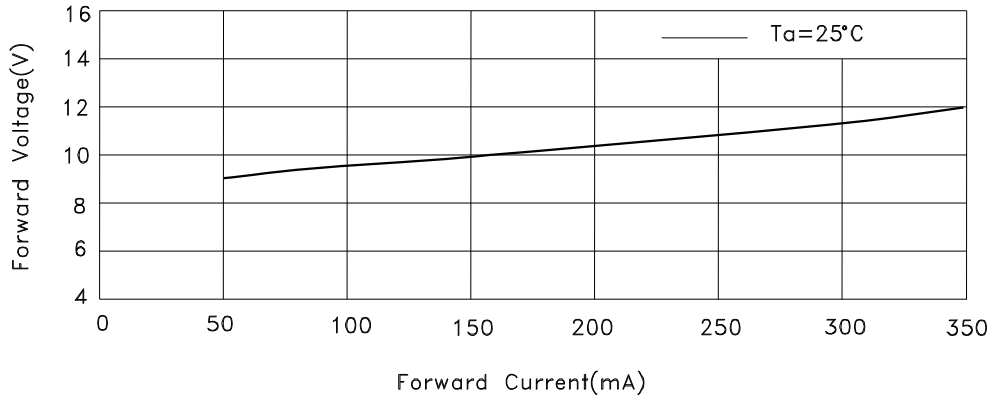
Electrical / Optical Characteristics

Part Name	Device	Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
KAS-4805QBFS/3	Blue	Forward Voltage [2]	V _F	11.5	12.0	12.5	V	I _F =350mA
		Luminous Flux [3]	Φ _v	15	20	-	lm	I _F =350mA
		Wavelength at peak emission[4]	λ _{peak}	-	461	-	nm	I _F =350mA
		Dominant Wavelength	λ _{dom}	-	465	-	nm	I _F =350mA
		Spectral bandwidth at 50%Φ _{REL} MAX	Δλ _{1/2}	-	25	-	nm	I _F =350mA
		Temperature coefficient of λ _{peak}	TCλ _{peak}	-	0.12	-	nm/°C	I _F =350mA
		Temperature coefficient of λ _{dom}	TCλ _{dom}	-	0.10	-	nm/°C	I _F =350mA
		Temperature coefficient of Forward Voltage	ΔλV _F /ΔT	-	-2.9	-	mV/°C	I _F =350mA
		Thermal Resistance	R _{th j-c}	-	3.5	-	°C/W	I _F =350mA
		Emission Angle	2 θ 1/2 X direction	-	130	-	°	I _F =350mA
2 θ 1/2 Y direction	-		130	-	°	I _F =350mA		

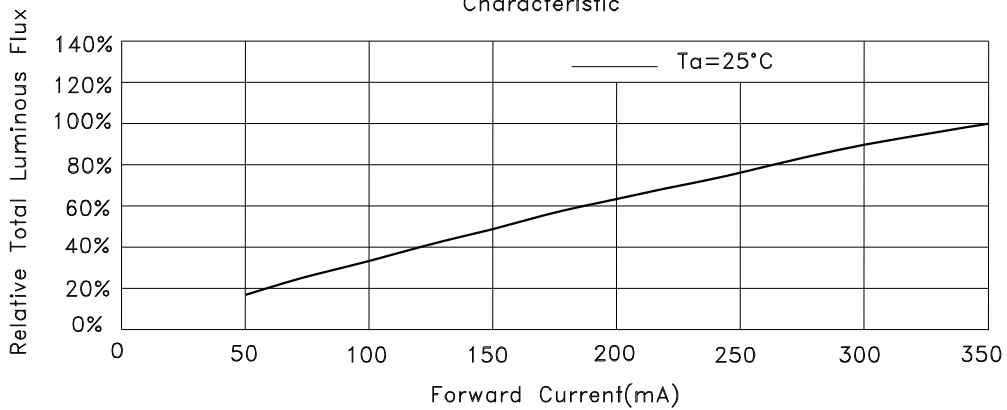
Notes:

2. Forward Voltage is measured with an accuracy of +/-0.1V.
3. Flux is measured with an accuracy of +/-15%.
4. Wavelength : +/-0.1nm.

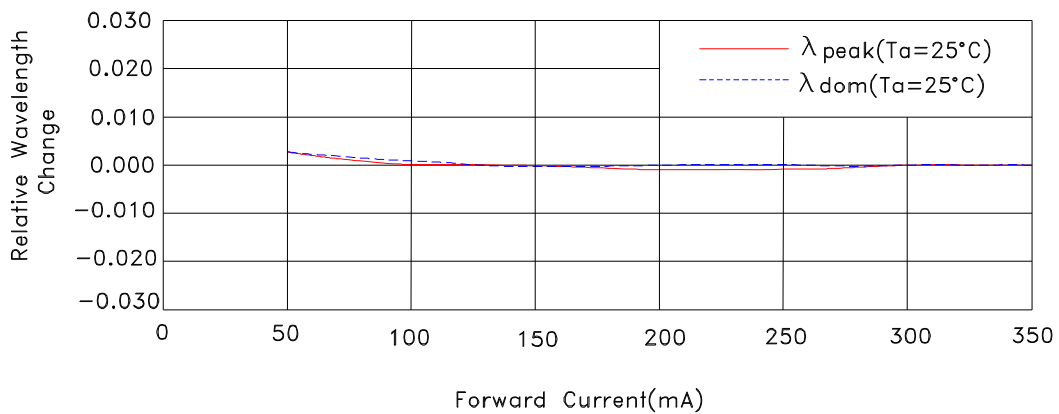
Forward Current – Forward Voltage Characteristic



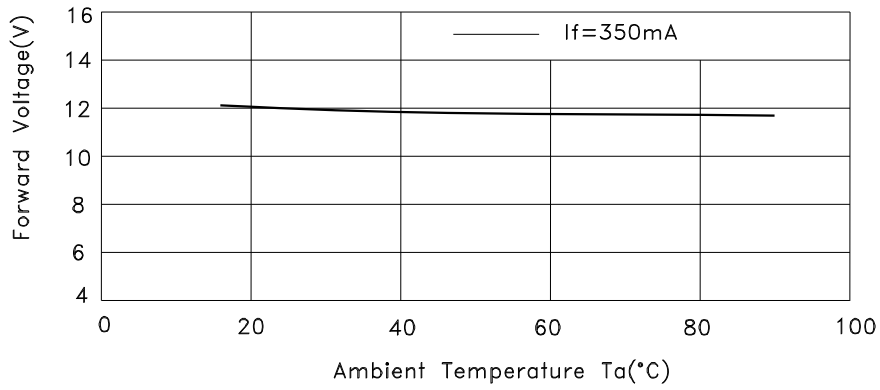
Forward Current – Relative Total Luminous Flux Characteristic



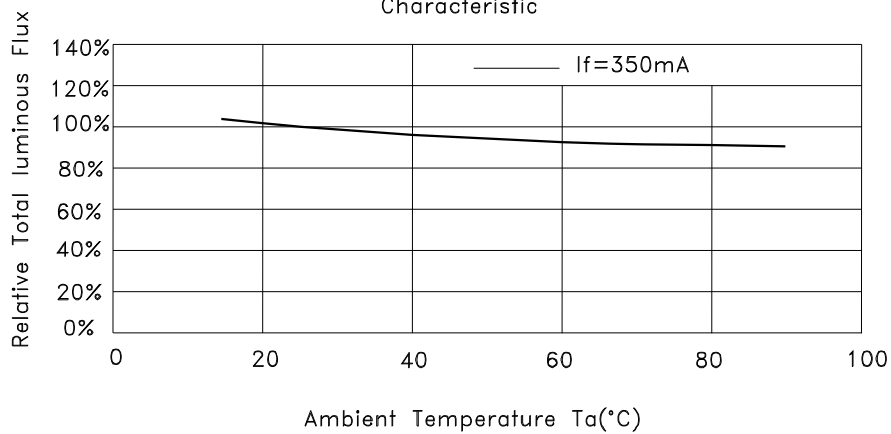
Forward Current – Relative Wavelength Change Characteristic



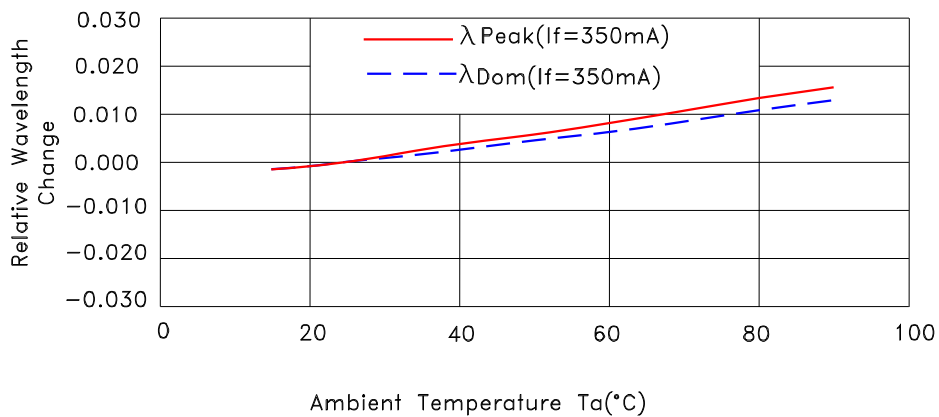
Ambient Temperature T_a – Forward Voltage Characteristic



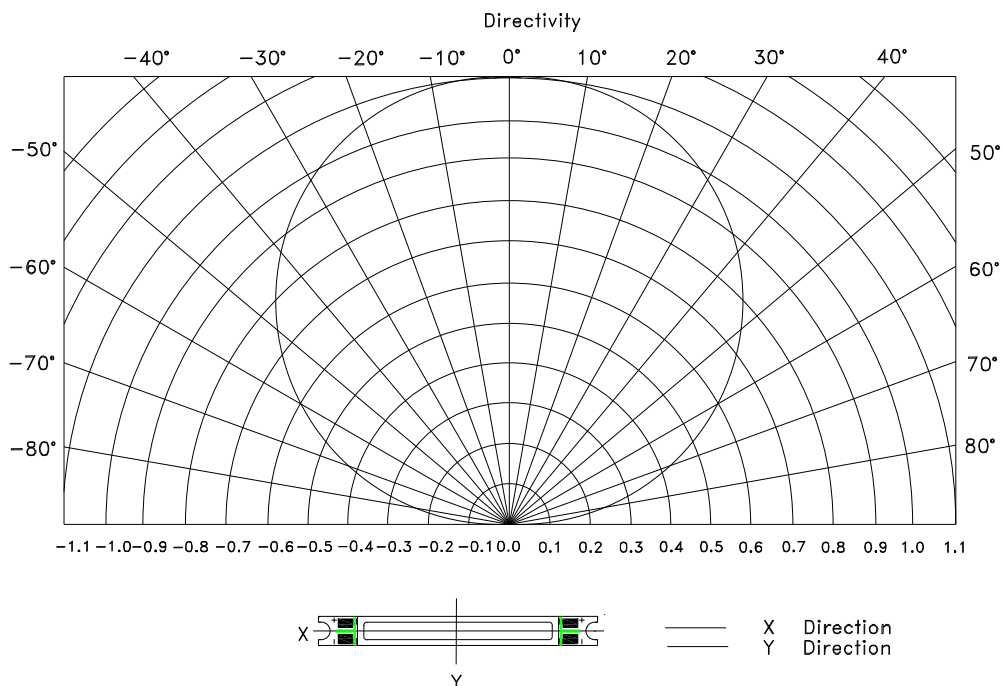
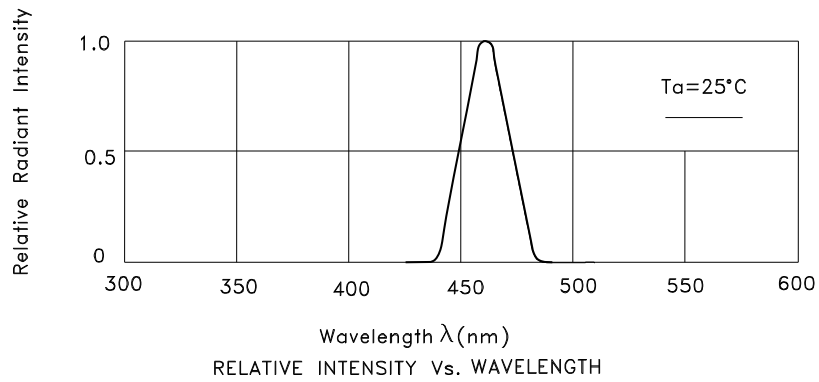
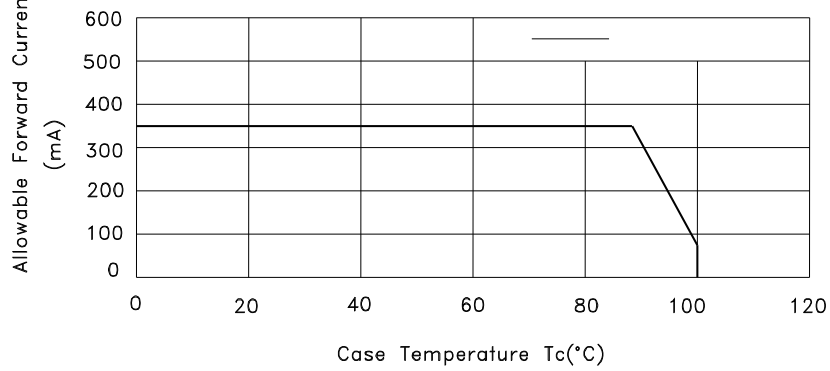
Ambient Temperature T_a – Relative Total Luminous Flux Characteristic



Ambient Temperature T_a – Relative Wavelength Change Characteristic

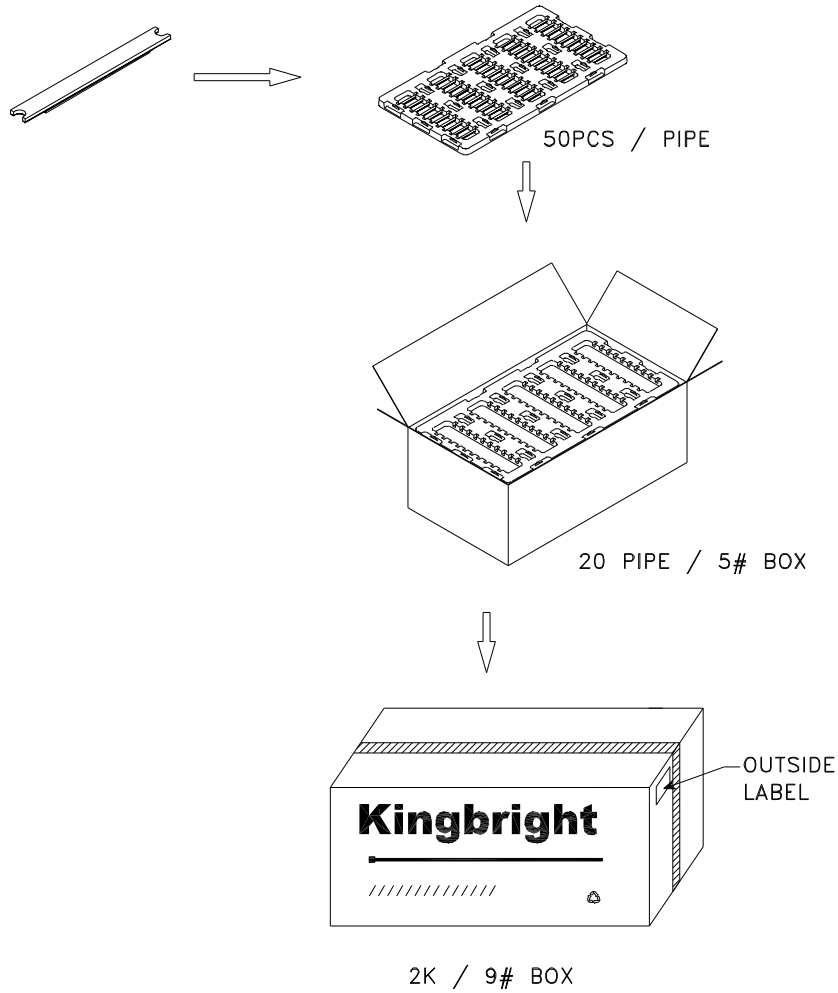



Case Temperature Tc – Allowable Forward Current Characteristic



PACKING & LABEL SPECIFICATIONS

KAS-4805QBFS/3



Kingbright	
Q.C.	QC XXX XX. XXXX PASSED
TYPE NO :KAS-4805XXX	
QUANTITY : 50 pcs	
S/N : XXX	CODE: XXX
LOT NO 	
XX-XXXX	RoHS Compliant