

# Specification For Approval

Customer :

Description : LED Lamp

Part Number : B3b-146-10

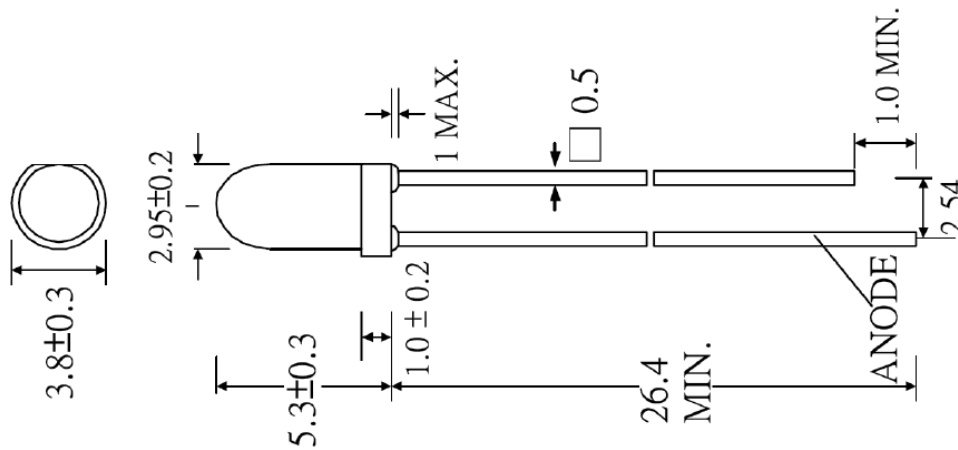
Date :

**Approved By:**

**Prepared By:**

Checked	QC	Designed	Sales

### ★ Package Dimensions



**NOTE:**

1. All dimensions are in millimeter.
2. Lead spacing is measured where the lead emerge from the package.

### ★ Selection Guide

Part NO.	Chip		Lens Color	Viewing Angle $2\theta$ 1/2(deg)
	Material	Emitted Color		
B3b-146-10	GaAlAs	Super Red	Red diffused	30

### Part No:B3b-146-10

#### ★Absolute Maximum Ratings

(Ta=25°C)

Parameter	Symbol	MAX. Rating	Unit
Power Dissipation	Pd	80	mW
Continuous Forward Current	IF	50	mA
Peak forward current (10 μs Pulse)	IFM	200	mA
Reverse Voltage	VR	5.0	V
Operating Temperature	Topr	-40~+85	°C
Storage Temperature	Tstg	-40~+85	°C
Lead Soldering Temperature (1.6mm From Case Bottom 260°C For 5 SEC)			

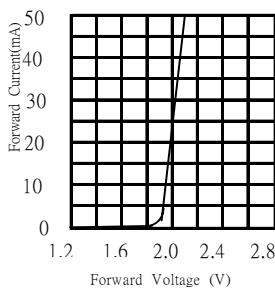
#### ★Electric-Optical Characteristics

Parameter	Symbol	Test Condition	MIN	TYP	MAX	Unit
Forward Voltage	VF	IF=20mA		1.9	2.6	V
Reverse Voltage	VR	IR=10uA	5			V
Luminous Intensity	IV	IF=20mA	250	350		mcd
Peak Emission Wavelength	λ P	IF=20mA		660		nm
Spectrum Width Of Half Value	Δ λ	IF=20mA		25		nm

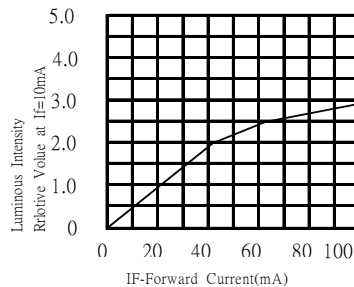
#### ★Characteristics Diagrams

Super Red(GaAlAs)

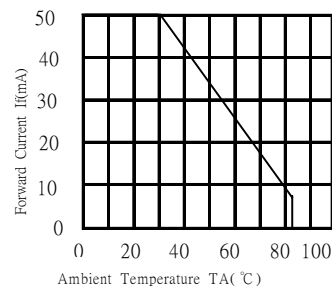
FORWARD CURRENT Vs. FORWARD VOLTAGE



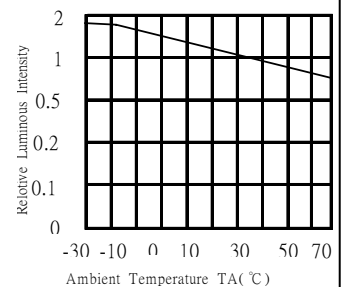
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



**Part No: B3b-146-10**

**★Reliability Test**

No	Item	Test Condition	Test Hours/Cycles	Samples Tested	Acc./Rej
1	Room Temperature DC Oper-ating Life	Ta=25°C, I <sub>F</sub> =20mA	1000 Hrs	76	0/1
2	Thermal Shock	-10°C (5min)→ (10sec)→+100°C (5min)	100 Cycles	76	0/1
3	Temperature Cycle	-40°C (30min) →(5min)→+85 °C (30min)	100 Cycles	76	0/1
4	High Temp./ High Humi. Test	85°C /85%RH	1000 Hrs	76	0/1
5	High Temperature Storage	Ta=100°C	1000 Hrs	76	0/1
6	Low Temperature Storage	Ta= - 40°C	1000 Hrs	76	0/1
7	Soldering Heat	260°C±5°C	5 Seconds	76	0/1