

# SMBB395H-1100

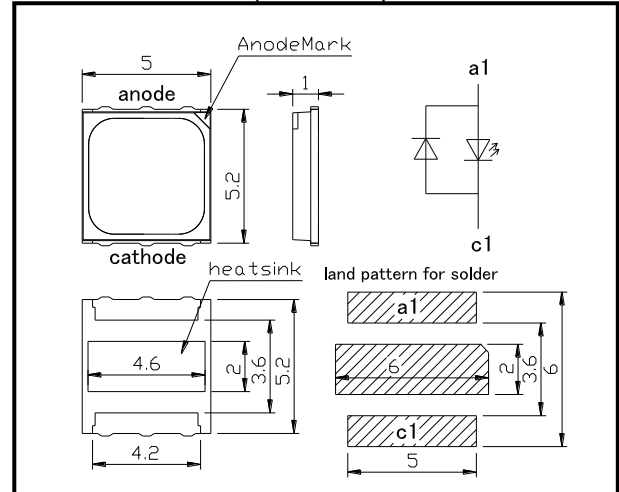
## High Power type Top LED

SMBB395H-1100 is an InGaN LED mounted on copper heat sink and is covered with silicone resin.

◆ Specifications

- 1) Product Name High Power Top LED
- 2) Type No. SMBB395H-1100
- 3) Chip
  - (1) Chip Material InGaAs
  - (2) Chip Dimension 1000um\*1000um
  - (3) Chip Number 1pce
  - (4) Peak Wavelength 395nm typ.
- 4) Package
  - (1) Lead Frame Die Silver Plated on Copper
  - (2) Package Resin PPA Resin
  - (3) Lens Silicone Resin

◆ Outer dimension (Unit: mm)



◆ Absolute Maximum Ratings [Ta=25°C]

Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	P <sub>D</sub>	1500	mW
Forward Current	I <sub>F</sub>	350	mA
Pulse Forward Current	I <sub>FP</sub>	500	mA
Reverse Voltage	V <sub>R</sub>	not designed for reverse operation	V
Thermal Resistance	R <sub>thja</sub>	10	K/W
Junction Temperature	T <sub>j</sub>	100	°C
Operating Temperature	T <sub>OPR</sub>	-30 ~ +85	°C
Storage Temperature	T <sub>STG</sub>	-30 ~ +100	°C
Soldering Temperature	T <sub>SOL</sub>	250	°C

‡Pulse Forward Current condition: Duty=1% and Pulse Width=10us.

‡Soldering condition: Soldering condition must be completed within 5 seconds at 250°C

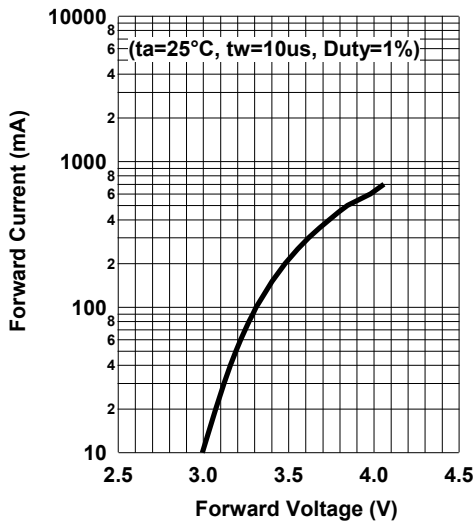
◆ Electro-Optical Characteristics [Ta=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =200mA		3.5	4.3	V
		I <sub>F</sub> =350mA		3.7	4.5	
Pulsed Forward Voltage	V <sub>FP</sub>	I <sub>FP</sub> =500mA		3.9	5.3	V
Total Radiated Power	P <sub>O</sub>	I <sub>F</sub> =200mA		100		mW
Peak Wavelength	λ <sub>P</sub>	I <sub>F</sub> =200mA		395		nm
Half Width	Δλ	I <sub>F</sub> =200mA		14		nm
Viewing Half Angle	θ <sub>1/2</sub>	I <sub>F</sub> =200mA		±60		deg.

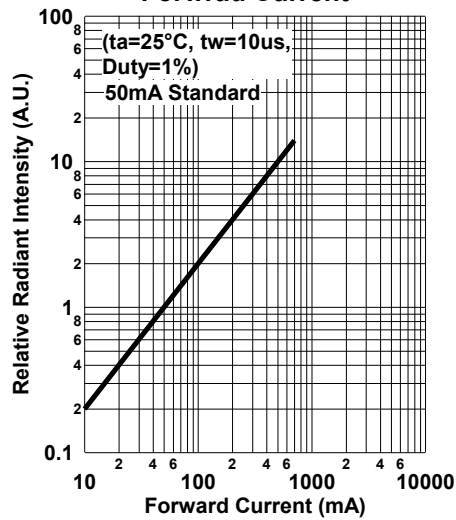
‡Radiated Power is measured by S3584-08.

Lead (Pb) Free Product - RoHS Compliant

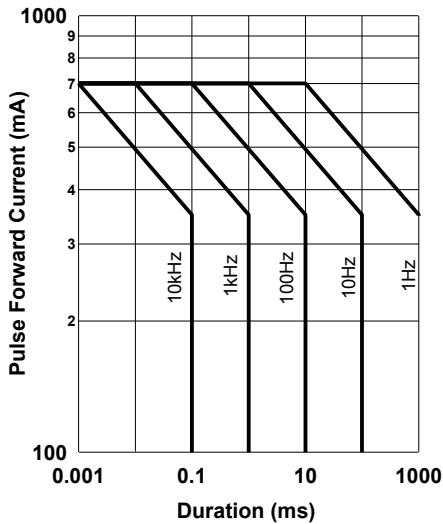
**Forward Current - Forward Voltage**



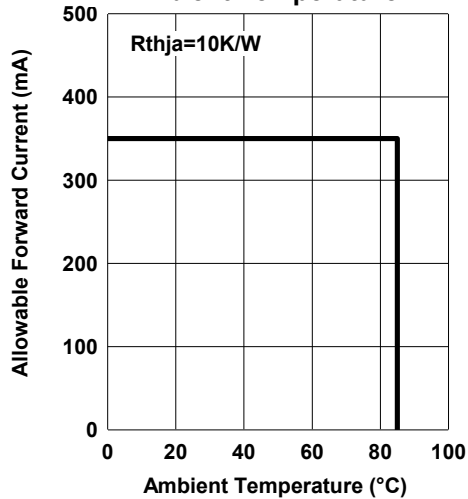
**Relative Radiant Intensity - Forward Current**



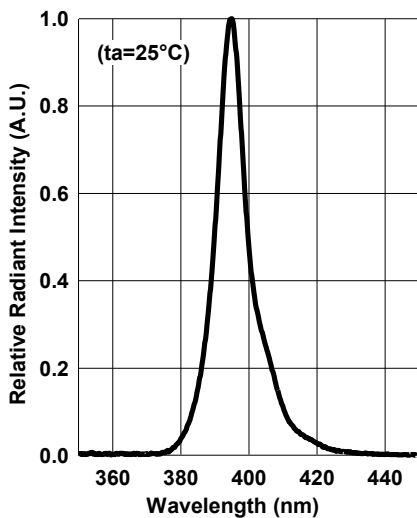
**Forward Current-Pulse Duration**



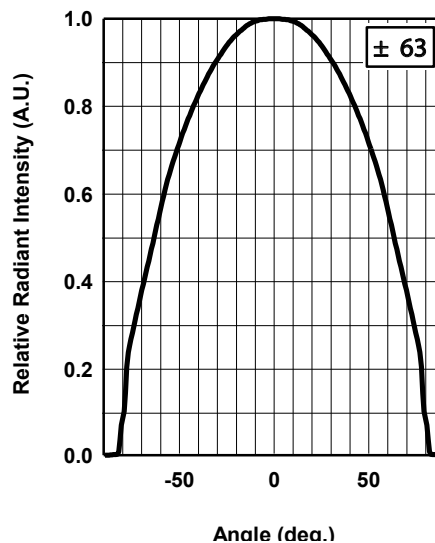
**Allowable Forward Current - Ambient Temperature**

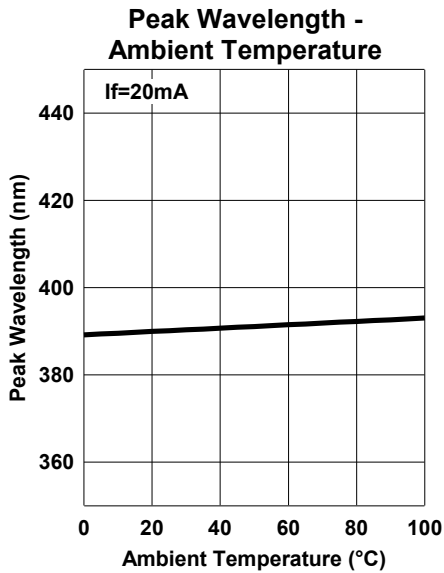
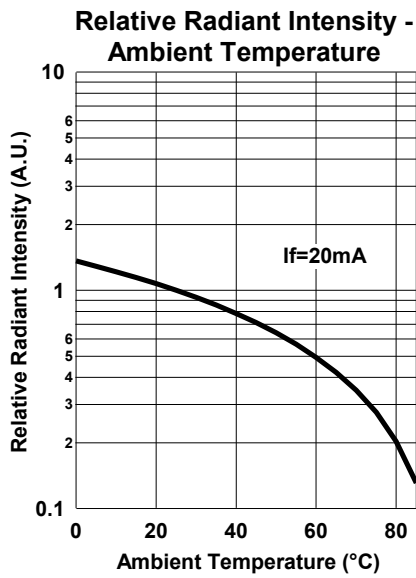
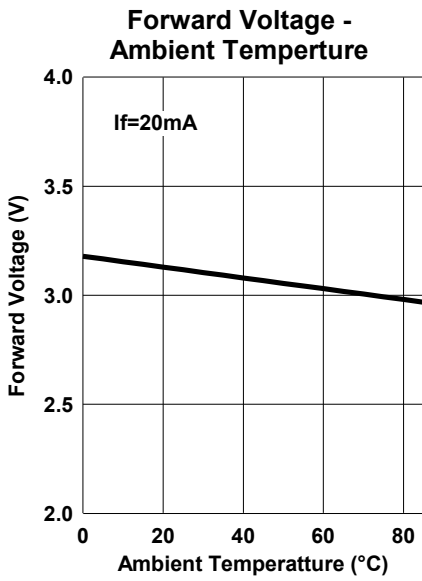


**Relative Spectral Emission**



**Radiation Pattern**





◆ Wrapping

Moisture barrier bag aluminum laminated film with a desiccant to keep out the moisture absorption during the transportation and storage.

**SMD LED STORAGE AND HANDLING PRECAUTIONS****< Storage Conditions before Opening a Moisture-Barrier Aluminum Bag >**

- Before opening a moisture-barrier aluminum bag, please store it at <30°C, <60%RH. Please note that the maximum shelf life is 12 months under these conditions.

**< Storage Conditions after Opening a Moisture-Barrier Aluminum Bag >**

- After opening a moisture-barrier aluminum bag, store the aluminum bag and silica gel in a desiccator.
- After opening the bag, please solder the LEDs within 72 hours in a room with 5 - 30°C, <50%RH.
- Please put any unused, remaining LEDs and silica gel back in the same aluminum bag and then vacuum-seal the bag.
- It is recommended to keep the re-sealed bag in a desiccator at <30%RH.

**< Notes about Re-sealing a Moisture-Barrier Aluminum Bag >**

- When vacuum-sealing an opened aluminum bag, if you find the moisture-indicator of the silica gel has changed to pink from blue (indicating a relative humidity of 30 % or more), please do not use the unused LEDs, the aluminum bag, or the silica gel.

**< Notes about Opening a Re-sealed Moisture-Barrier Aluminum Bag >**

- When opening a vacuumed and re-sealed aluminum bag in order to use the remaining LEDs stored in the bag, if you find that the moisture-indicator of the silica has changed to pink, please do not use the LEDs.

※The 72-hour-long floor life does not include the time while LEDs are stored in the moisture-barrier aluminum bag.

However, we strongly recommend to solder the LEDs as soon as possible after opening the aluminum bag.