

SMBT2*405/850D-3100-I
High Power Multi-color Top LED

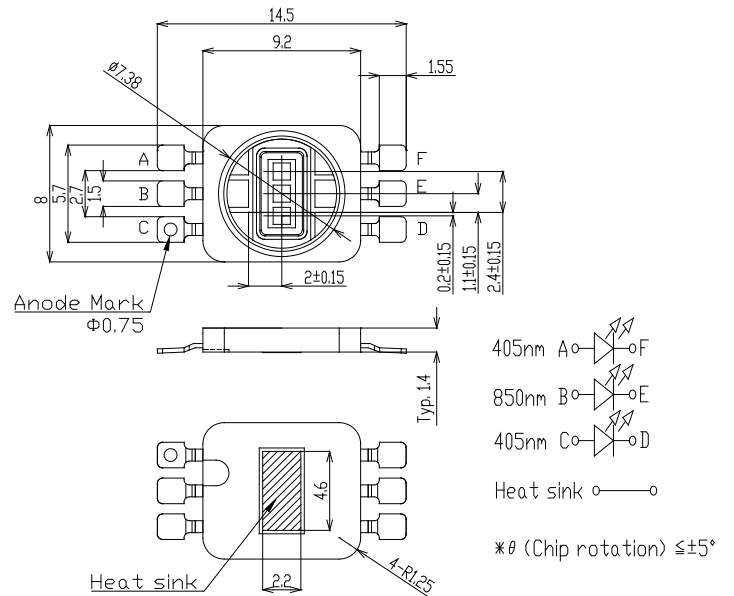
<Specifications>

- Chip Material: AlInGaN and AlGaAs
- Chip Dimension: 1000um x 1000um
- Number of Chips: 3pcs
(405nm x 2pcs, 805nm x 1pc)
- Peak Wavelength: 405nm typ. / 805nm typ.

<Package>

- Material: PPA
- Sub Mount: AlN
- Top Resin: Silicone
- Lead Frame: Copper Alloy

Outer Dimension (Unit:mm)



Absolute Maximum Ratings[Tc=25°C]				
Item	Symbol	405nm	850nm	Unit
		Value		
Power Dissipation	PD	1250	2500	mW
Forward Current	IF	350	1000	mA
Reverse Voltage	VR	5		V
Junction Temperature	Tj	120		°C
Operating Temperature	TOPR	-40 ~ +85		°C
Storage Temperature	TSTG	-40 ~ +100		°C
Soldering Temperature*	TSOL	250		°C

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

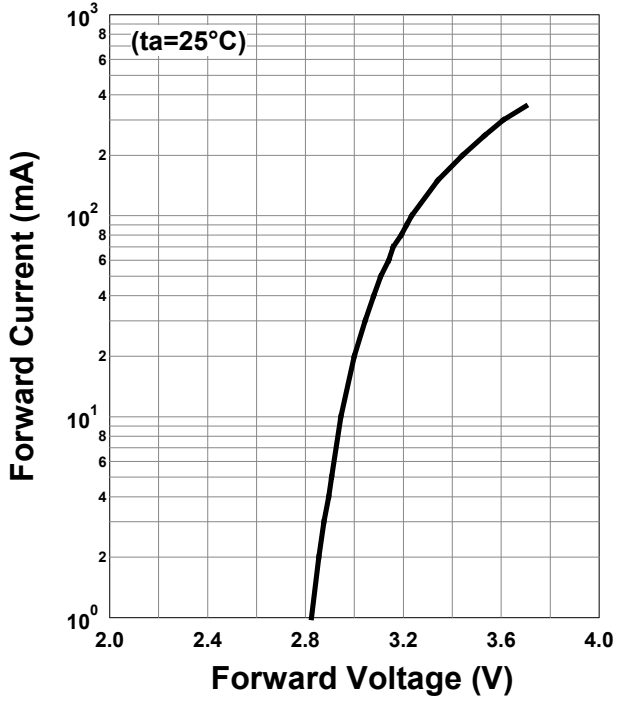
Electro-Optical Characteristics [Tc=25°C]										
Item	Symbol	Condition		Min		Typ		Max		Unit
		405nm	850nm	405	850	405	850	405	850	
Forward Voltage	VF	IF=350mA	IF=700mA	3.2	1.5	3.7	1.8	4.2	2.4	V
T. Radiant Power*	PO	IF=350mA	IF=700mA	140	308	200	440	(500)	(600)	mW
Peak Wavelength	λP	IF=350mA	IF=700mA	395	840	-	-	415	860	nm

* Measured by S3584-08

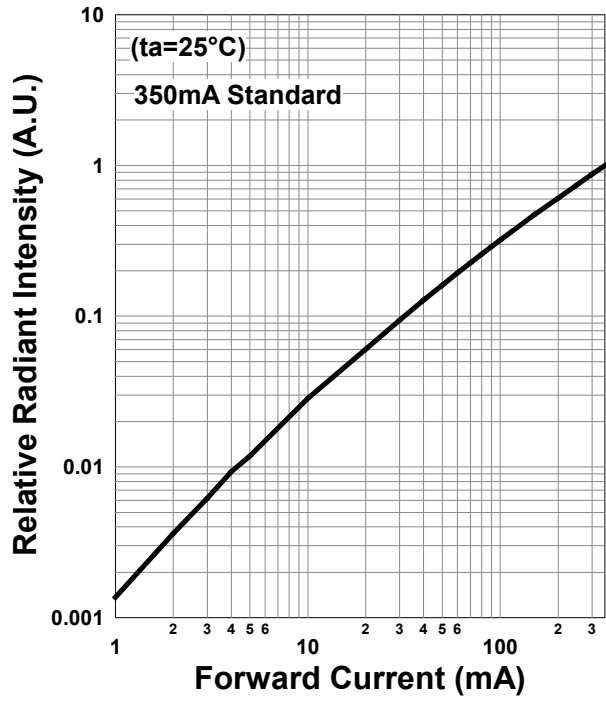


Typical Characteristic Curves
405nm

Forward Current - Forward Voltage

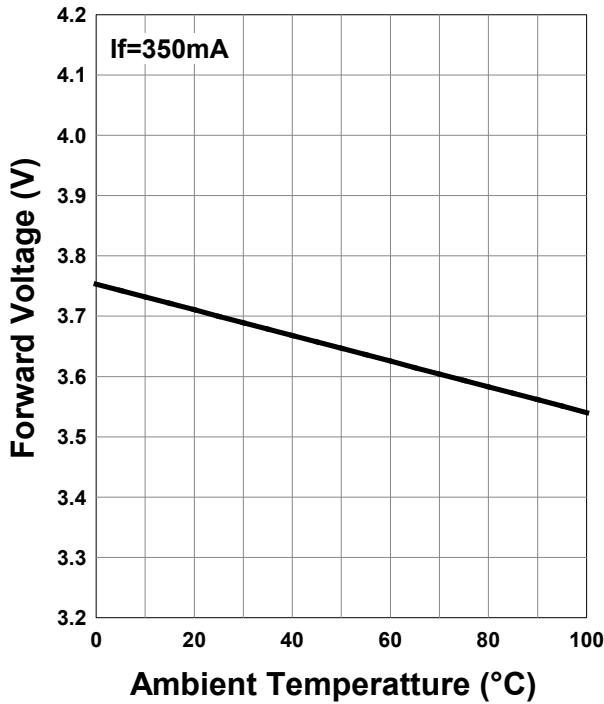


Relative Radiant Intensity - Forward Current

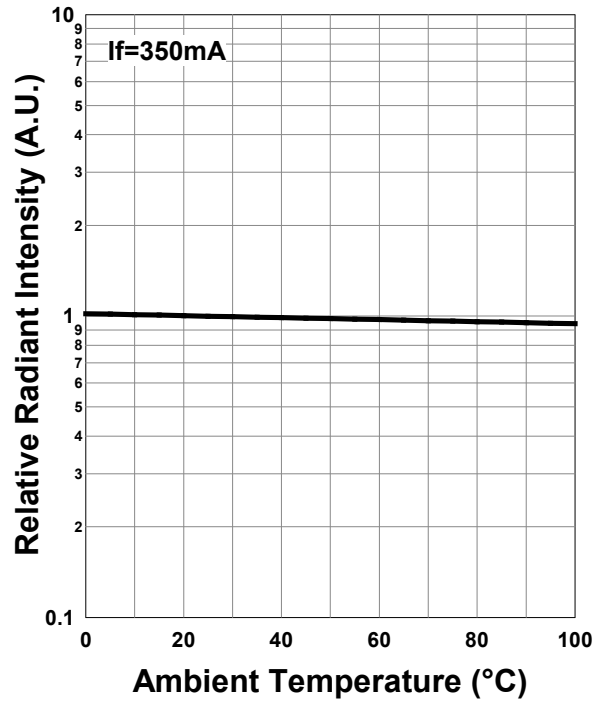


405nm

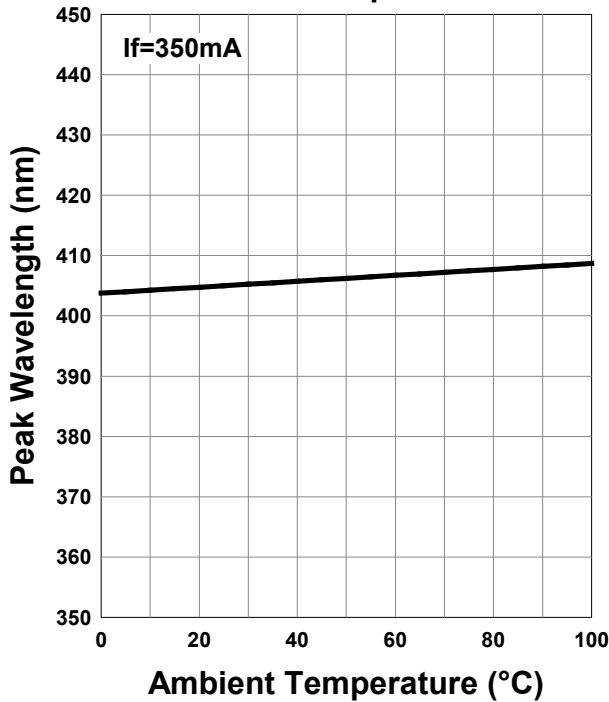
Forward Voltage - Ambient Temperature



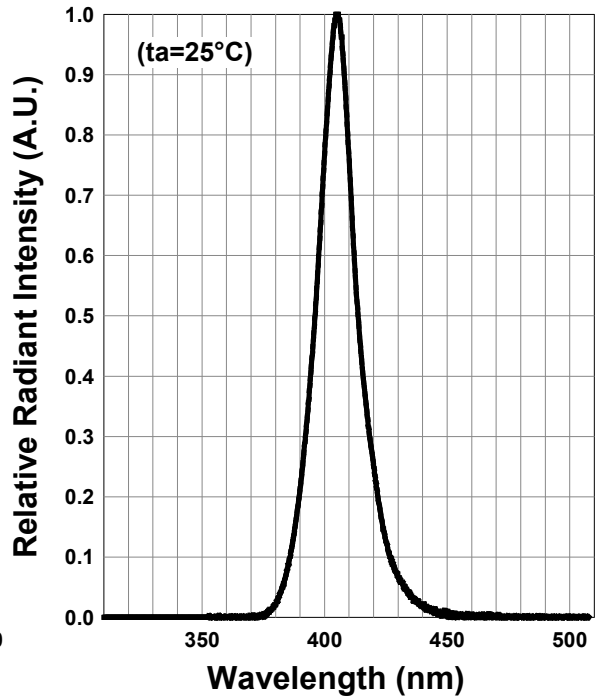
Relative Radiant Intensity - Ambient Temperature



Peak Wavelength - Ambient Temperature

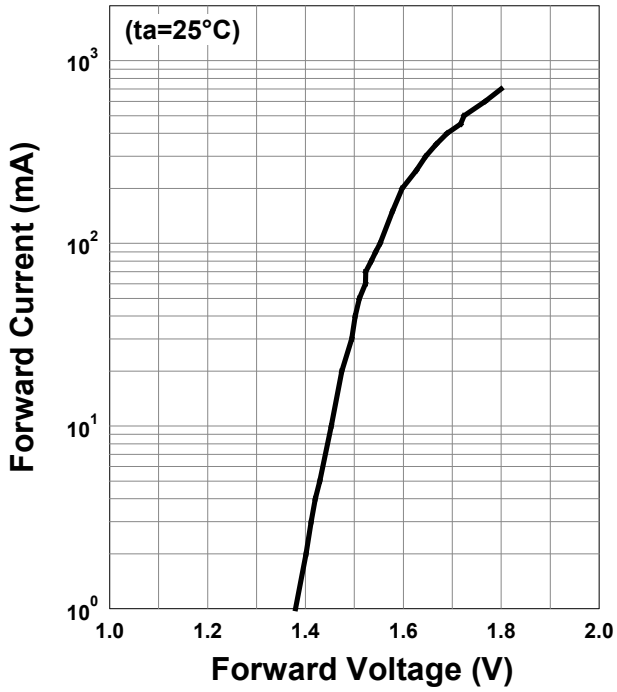


Relative Spectral Emission

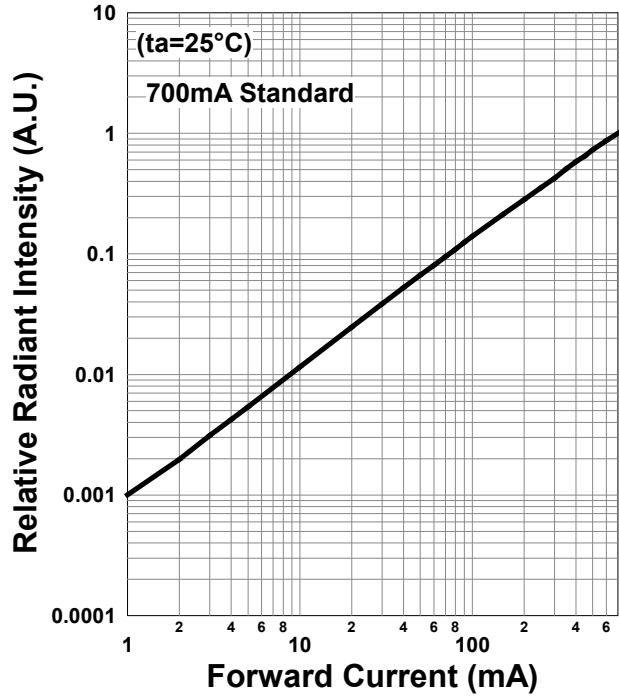


Typical Characteristic Curves
850nm

Forward Current - Forward Voltage

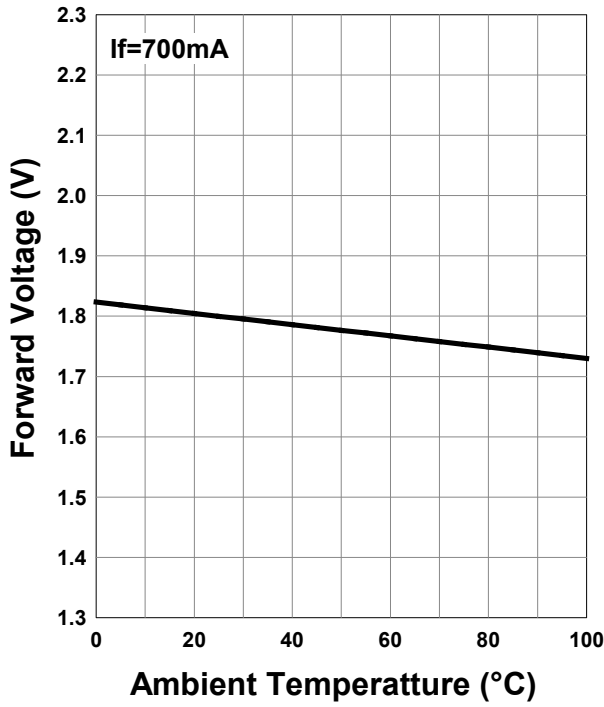


Relative Radiant Intensity -
Forward Current

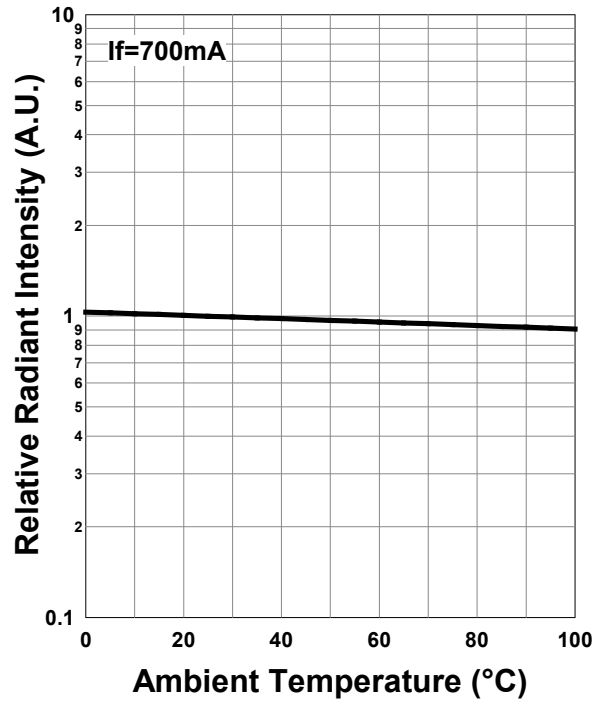


850nm

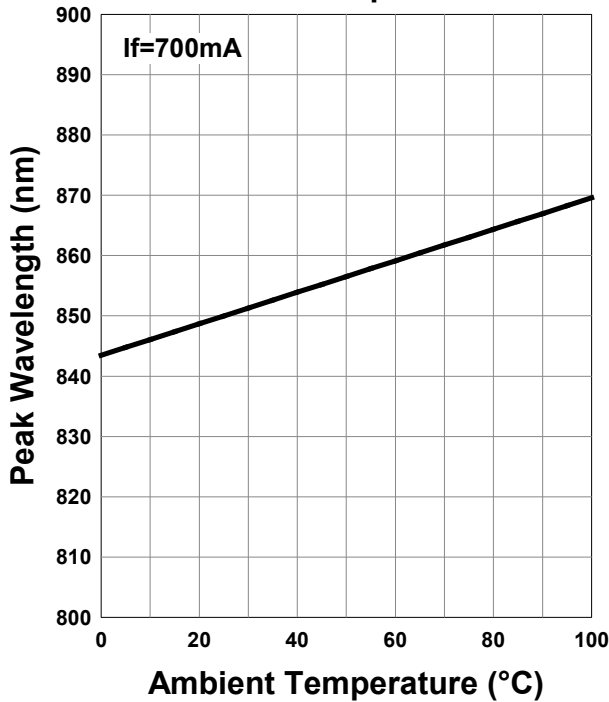
Forward Voltage - Ambient Temperature



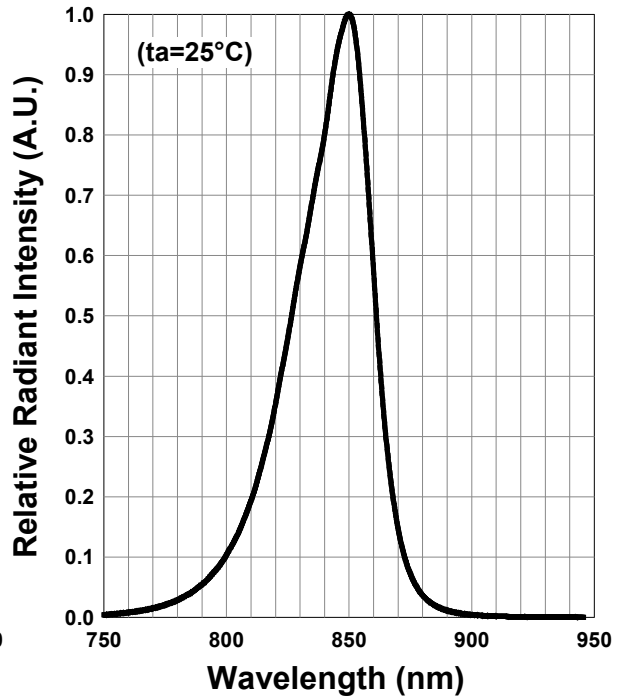
Relative Radiant Intensity - Ambient Temperature



Peak Wavelength - Ambient Temperature



Relative Spectral Emission



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.
- 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

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.

Appearance Inspection

- Contamination (adhered in the production process) on the surface of resin is unquensitoned .
- Bubble, scratch, crack that not affect the performance are unquensitoned.

Disclaimer

Product specifications and data shown in this product catalog are subject to change without notice for the purposes of improving product performance, reliability, design, or otherwise.

Product data and parameters in this catalog are typical values based on reasonably up-to-date measurements.

Product data and parameters may vary by user application and over time.

Products shown in this catalog are intended to be used for general electronic equipment. Products are not guaranteed for applications where product malfunction or failure may cause personal injury or death, including but not limited to life-supporting / saving devices, medical devices, safety devices, airplanes, aerospace equipment, automobiles, traffic control systems, and nuclear reactor control systems.

2016.07