DATASHEET

Side View LEDs (Height 1.4mm)
50-215-B7C-AS2T2E-2G



Features

- Lead frame package with individual 2 pins.
- Wide viewing angle.
- Soldering methods: IR reflow soldering.
- ESD protection.
- Pb-free.
- The product itself will remain within RoHS compliant version.
- Compliance with EU REACH.
- Compliance Halogen Free .(Br<900ppm,Cl<900ppm,Br+Cl<1500ppm).
- Precondition: Bases on JEDEC J-STD 020D Level 3

Applications

- Electric Equipment
- Indicators.
- Switch Lights.

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Device Selection Guide

Chip Material	Emitted Color	Resin Color
InGaN	Blue	Water Clear

Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Rating	Unit
Reverse Voltage	VR	5	V
Forward Current	IF	30	mA
Peak Forward Current (Duty 1/10 @1KHz)	IFP	100	mA
Power Dissipation	Pd	110	mW
Electrostatic Discharge(HBM) *1	ESD	1000	V
Operating Temperature	Topr	-40 ~ +85	℃
Storage Temperature	Tstg	-40 ~ +90	℃
Soldering Temperature	Tsol	Reflow Soldering : 260℃ for 10 sec. Hand Soldering : 350℃ for 3 sec.	

Electro-Optical Characteristics (Ta=25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv	225	----	450	mcd	IF=20mA
Viewing Angle	2θ1/2	----	120	----	deg	
Peak Wavelength	λp	----	468	----	nm	
Dominant Wavelength	λd	464.5	----	476.5	nm	
Spectrum Radiation Bandwidth	Δλ	----	25	----	nm	
Forward Voltage	VF	2.75	----	3.65	V	
Reverse Current	IR	----	----	50	μA	VR=5V

Notes:
1. Tolerance of Luminous Intensity: ±11%
2. Tolerance of Dominant Wavelength: ±1nm
3. Tolerance of Forward Voltage: ±0.1V

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Bin Range of Luminous Intensity

Bin Code	Min.	Max.	Unit	Conduction
S2	225	285	mcd	I_F=20mA
T1	285	360		
T2	360	450		

Note:
Tolerance of Luminous Intensity: ±11%

Bin Range of Dominant Wavelength

Group	Bin Code	Min.	Max.	Unit	Condition
A	A9	464.5	467.5	nm	I_F=20mA
	A10	467.5	470.5		
	A11	470.5	473.5		
	A12	473.5	476.5		

Note:
Tolerance of Dominant Wavelength: ±1nm

Bin Range of Forward Voltage

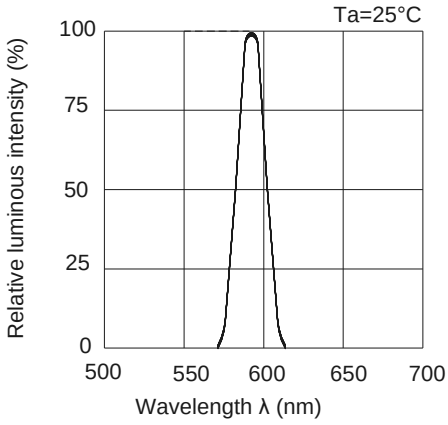
Group	Bin Code	Min.	Max.	Unit	Condition
E	5	2.75	3.05	V	I_F=20mA
	6	3.05	3.35		
	7	3.35	3.65		

Note:
Tolerance of Forward Voltage: ±0.1V

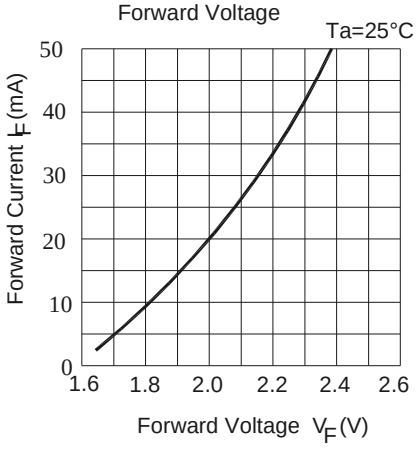
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Typical Electro-Optical Characteristics Curves

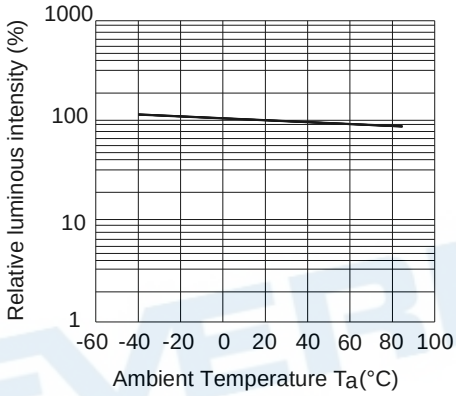
Spectrum Distribution



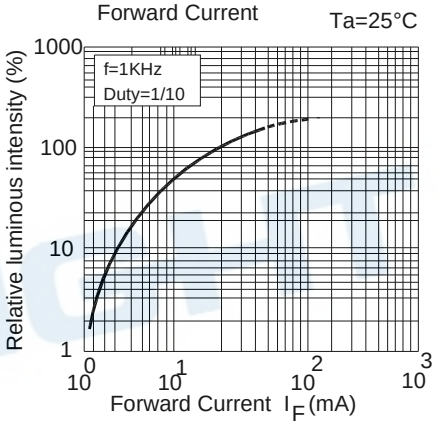
Forward Current vs. Forward Voltage



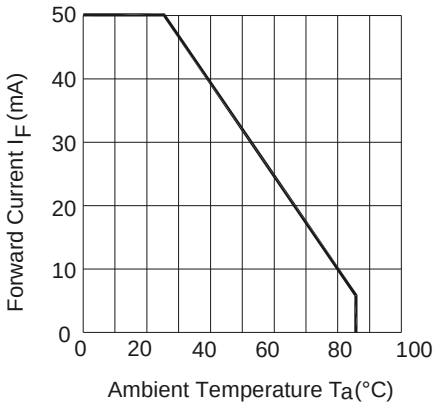
Relative Luminous Intensity vs. Ambient Temperature



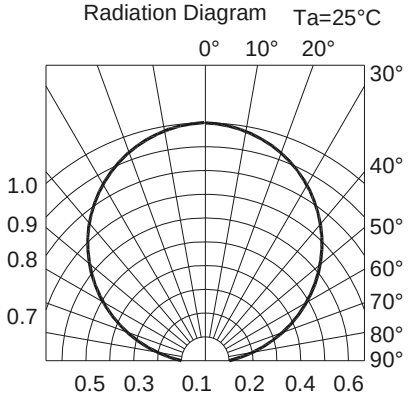
Relative Luminous Intensity vs. Forward Current



Forward Current Derating Curve

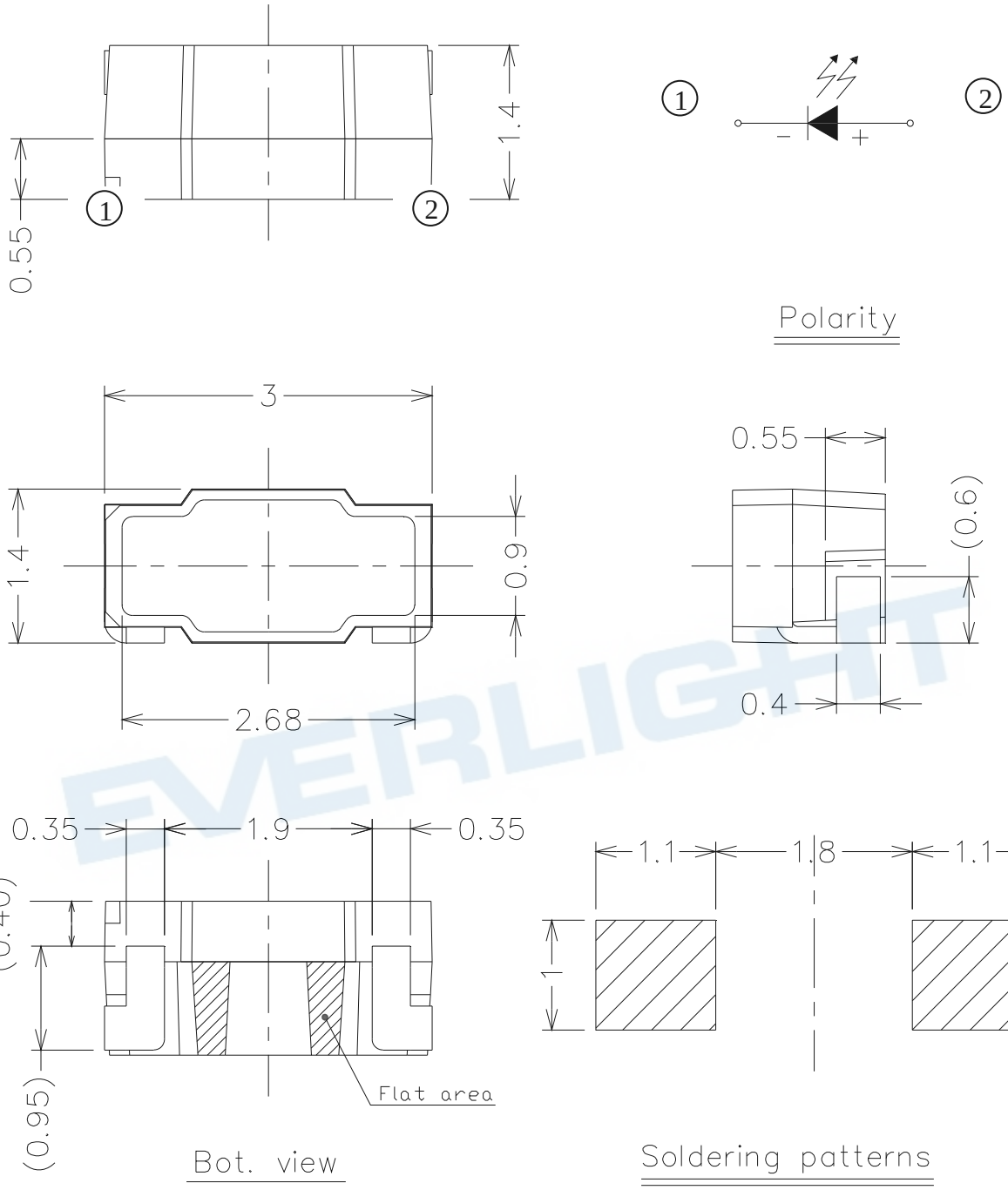


Radiation Diagram



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Package Dimension



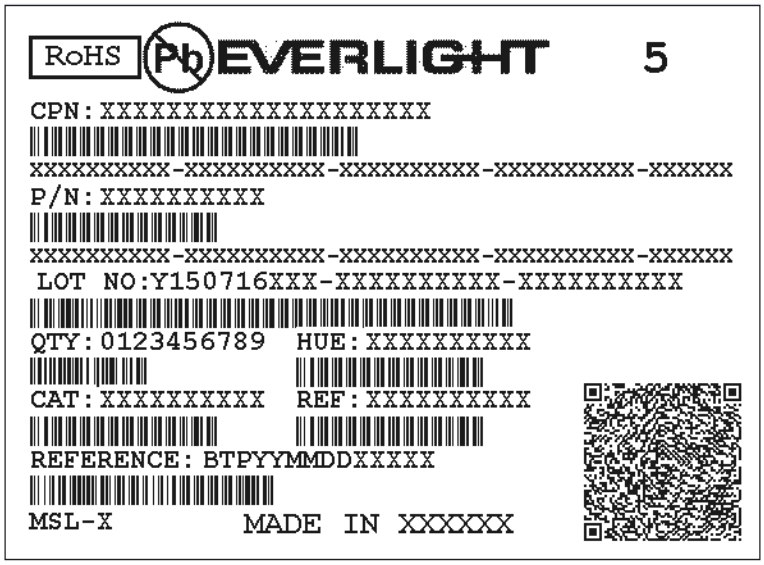
Note: Tolerances unless mentioned ±0.1mm. Unit = mm

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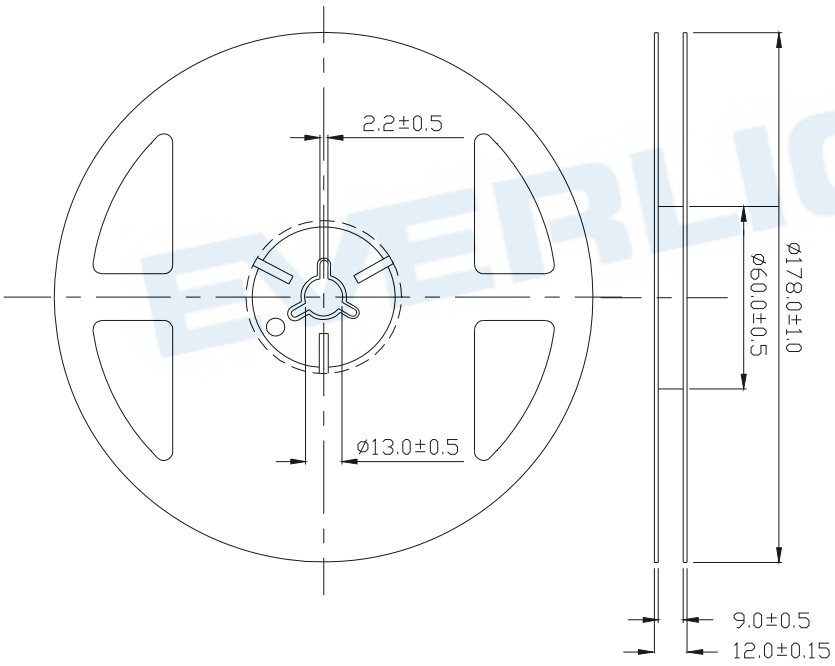
Moisture Resistant Packing Materials

Label Explanation

- CPN: Customer's Product Number
- P/N: Product Number
- QTY: Packing Quantity
- CAT: Luminous Intensity Rank
- HUE: Dom. Wavelength Rank
- REF: Forward Voltage Rank
- LOT No: Lot Number



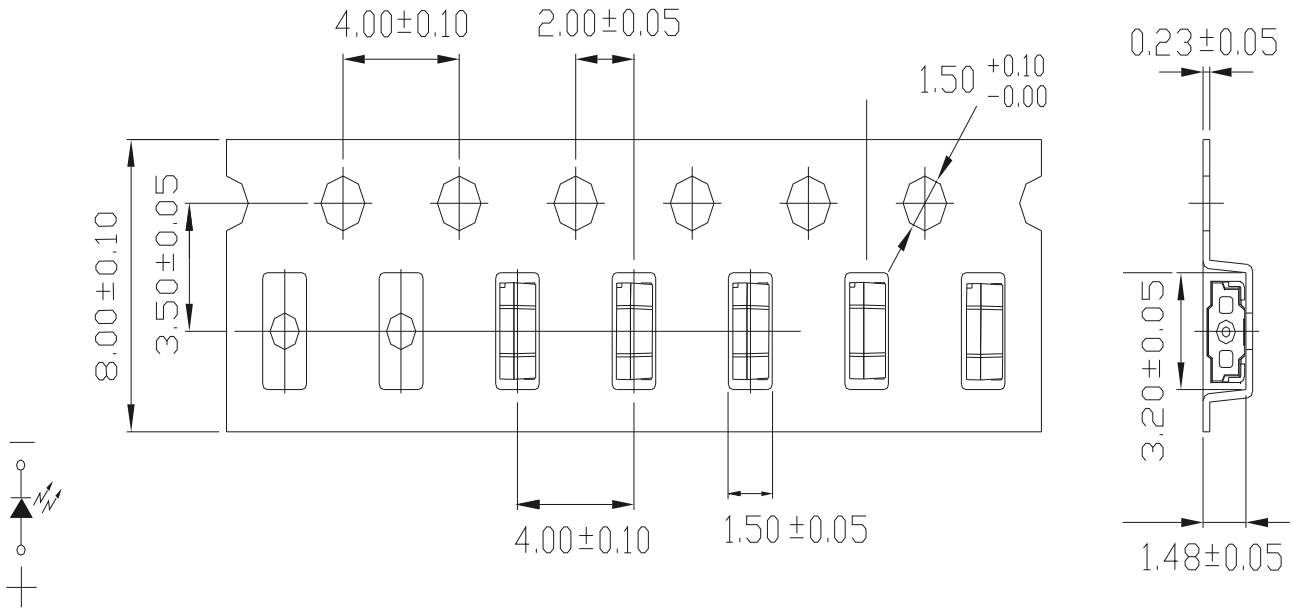
Reel Dimensions



Note: The tolerances unless dimensions are ± 0.1mm.

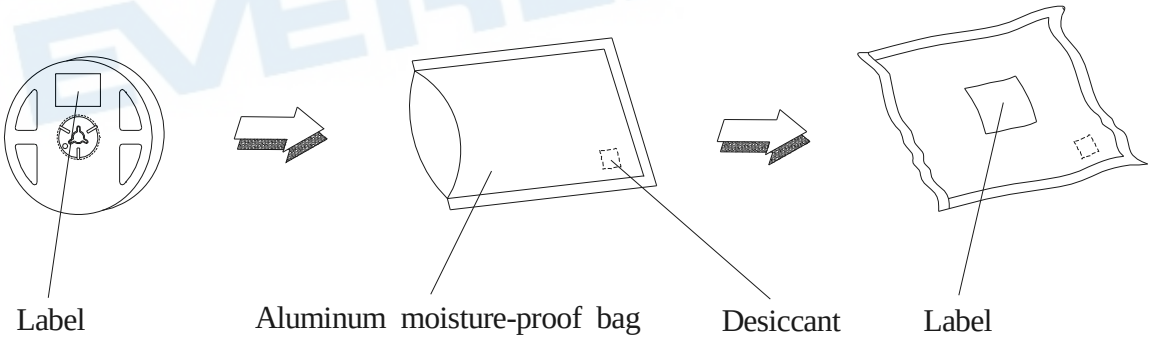
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Carrier Tape Dimensions: Loaded Quantity 2000 pcs Per Reel



Note:
1.The tolerances unless mentioned is : ±0.1mm,Unit = mm
2.Minimum packing amount is 250/500/1000/2000 pcs per reel

Moisture Resistant Packing Process



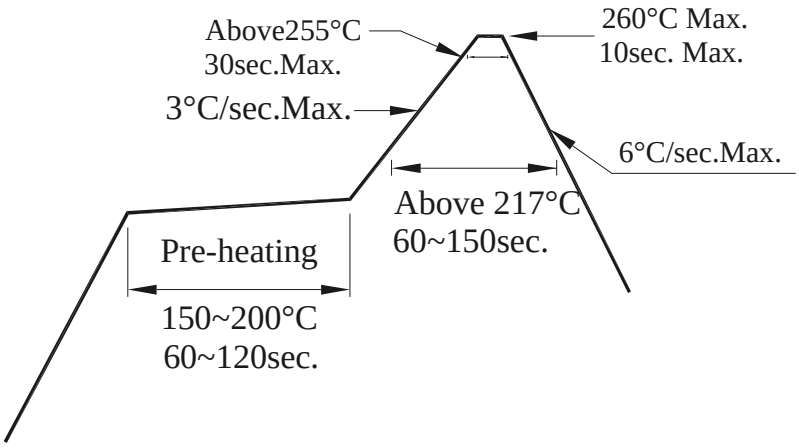
Note:
Tolerances unless mentioned ±0.1mm. Unit = mm

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Precautions for Use

1. Over-current-proof

1.1 Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change (Burn out will happen).



2. Storage

2.1 Moisture proof bag should only be opened immediately prior to usage.
2.2 Environment should be less than 30℃ and 60% RH when moisture proof bag is opened.
2.3 After opening the package MSL Conditions stated on page 1 of this spec should not be exceeded.
2.4 If the moisture sensitivity card indicates higher than acceptable moisture, the component should be baked at min. 60deg +/-5deg for 24 hours.

3. Soldering Condition

3.1 Pb-free solder temperature profile
3.2 Reflow soldering should not be done more than two times.
3.3 When soldering, do not put stress on the LEDs during heating.
3.4 After soldering, do not warp the circuit board.

4. Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 350℃ for 3 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.

5. Repairing

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.

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2. The product meets EVERLIGHT published specification for a period of twelve (12) months from date of shipment.
3. The graphs shown in this datasheet are representing typical data only and do not show guaranteed values.
4. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from the use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
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