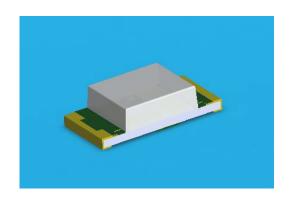


## **DATASHEET**

## SMD • B 19-217/G7C-AN1P2/6T



## **Features**

- . Package in 8mm tape on 7" diameter reel.
- . Compatible with automatic placement equipment.
- . Compatible with infrared and vapor phase reflow solder process.
- . Mono-color type.
- . Pb-free.
- The product itself will remain within RoHS compliant version.
- Compliance with EU REACH
- Compliance Halogen Free .(Br <900 ppm ,Cl <900 ppm , Br+Cl < 1500 ppm).

## **Description**

- . The 19-217 SMD LED is much smaller than lead frame type components, thus enable smaller board size, higher packing density, reduced storage space and finally smaller equipment to be obtained.
- . Besides, lightweight makes them ideal for miniature applications. etc.

## **Applications**

- . Backlighting in dashboard and switch.
- . Telecommunication: indicator and backlighting in telephone and fax.
- . Flat backlight for LCD, switch and symbol.
- . General use.



## **Device Selection Guide**

Chip Materials	Emitted Color	Resin Color
AlGaInP	Brilliant Yellow Green	Water Clear

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Reverse Voltage	$V_R$	5	V
Forward Current	l <sub>F</sub>	25	mA
Peak Forward Current (Duty 1/10 @1KHz)	ГР	60	mA
Power Dissipation	Pd	60	mW
Electrostatic Discharge	ESD <sub>HBM</sub>	2000	V
Operating Temperature	Topr	-40 ~ +85	$^{\circ}$
Storage Temperature	Tstg	-40 ~ +90	$^{\circ}\! \mathbb{C}$
Soldering Temperature	Tsol	Reflow Soldering : 260 $^{\circ}{\mathbb{C}}$ for 10 sec. Hand Soldering : 350 $^{\circ}{\mathbb{C}}$ for 3 sec.	



**Electro-Optical Characteristics (Ta=25°C)** 

Parameter	Symbol	Min.	Тур.	Max.	Unit	Condition
Luminous Intensity	lv	28.5		72.0	mcd	_
Viewing Angle	<b>2</b> 0 <sub>1/2</sub>		120		deg	_
Peak Wavelength	λр		575		nm	_
Dominant Wavelength	λd	569.5		577.5	nm	¯ I <sub>F</sub> =20mA
Spectrum Radiation Bandwidth	Δλ		20		nm	
Forward Voltage	VF	1.7	2.0	2.4	V	
Reverse Current	I <sub>R</sub>			10	μΑ	V <sub>R</sub> =5V

#### Note:

- 1.Tolerance of Luminous Intensity: ±11%
- 2. Tolerance of Dominant Wavelength ±1nm
- 3. Reverse Voltage(VR) Condition is applied to IR test only The device is not designed for reverse operation



**Bin Range of Luminous Intensity** 

Bin Code	Min.	Max.	Unit	Condition
N1	28.5	36.0		
N2	36.0	45.0		L 00 A
P1	45.0	57.0	mcd	I <sub>F</sub> =20mA
P2	57.0	72.0		

Bin Range Of Dom. Wavelength

Bin Code	Min.	Max.	Unit	Condition		
C16	569.5	571.5				
C17	571.5	573.5		I <sub>F</sub> =20mA		
C18	573.5	575.5	mm nm			
C19	575.5	577.5				
Note: 1.Tolerance of Luminous Intensity: ±11% 2.Tolerance of Dominant Wavelength: ±1nm						

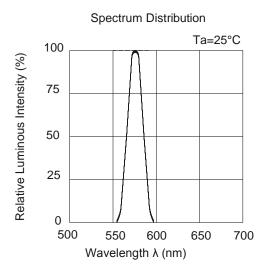
#### Note:

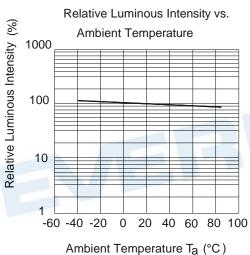
<sup>1.</sup>Tolerance of Luminous Intensity: ±11%

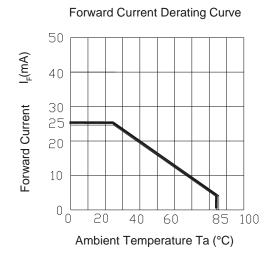
<sup>2.</sup> Tolerance of Dominant Wavelength: ±1nm

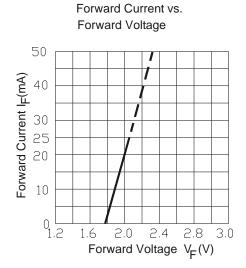


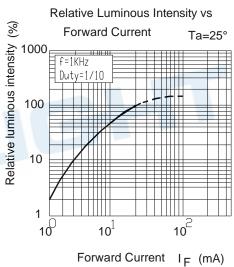
## **Typical Electro-Optical Characteristics Curves**

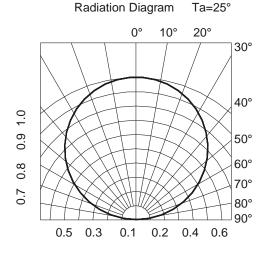






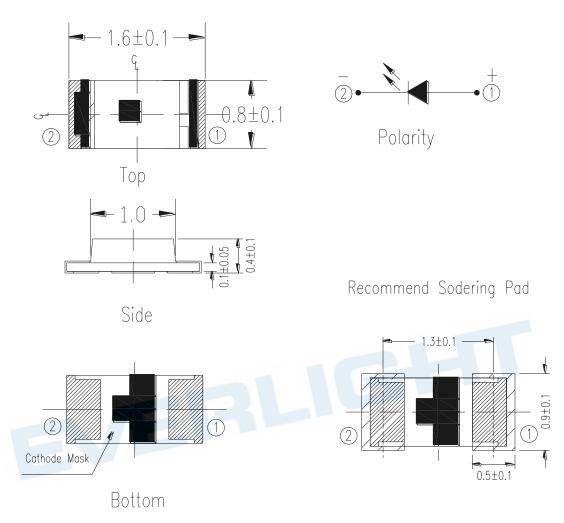








## **Package Dimension**

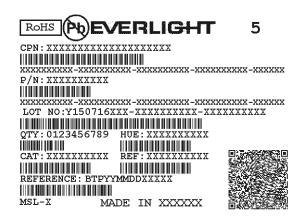


Suggested pad dimension is just for reference only. Please modify the pad dimension based on individual need.

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

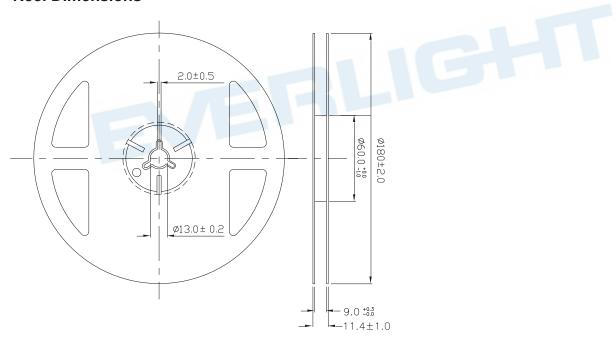


# Moisture Resistant Packing Materials Label Explanation



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

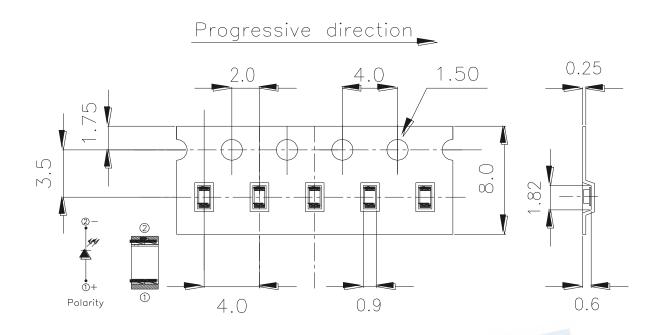
## **Reel Dimensions**



Note: The tolerances unless mentioned is  $\pm 0.1$ mm ,Unit = mm

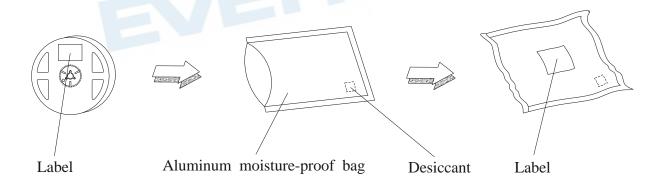


## Carrier Tape Dimensions: Loaded quantity 6000 PCS per reel



Note: The tolerances unless mentioned is  $\pm 0.1$ mm ,Unit = mm

## **Moisture Resistant Packaging**





## **Precautions For Use**

## 1. Over-current-proof

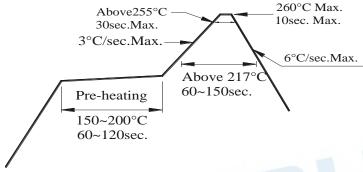
Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change ( Burn out will happen ).

#### 2. Storage

- 2.1 Do not open moisture proof bag before the products are ready to use.
- 2.2 After opening the package: The LEDs should be kept at 30°℃ or less and 60%RH or less.
- 2.3 The LEDs should be used within 168 hours (7days) after opening the package .

If unused LEDs remain, it should be stored in moisture proof packages

- 2.4 If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions. Baking treatment: 60±5°C for 24 hours.
- 3. Soldering Condition
- 3.1 Pb-free solder temperature profile



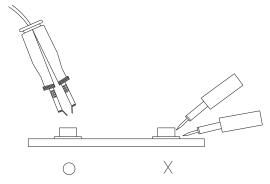
- 3.2 Reflow soldering should not be done more than two times.
- 3.3 When soldering, do not put stress on the LEDs during heating.
- 3.4 After soldering, do not warp the circuit board.

#### 4. Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 350°C 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.





## **Application Restrictions**

High reliability applications such as military/aerospace, automotive safety/security systems, and medical equipment may require different product. If you have any concerns, please contact Everlight before using this product in your application. This specification guarantees the quality and performance of the product as an individual component. Do not use this product beyond the specification described in this document.





## **DISCLAIMER**

- 1. EVERLIGHT reserves the right(s) on the adjustment of product material mix for the specification.
- 2. The graphs shown in this datasheet are representing typical data only and do not show guaranteed values.
- 3. 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.
- 4. These specification sheets include materials protected under copyright of EVERLIGHT. Reproduction in any form is prohibited without obtaining EVERLIGHT's prior consent.
- 5. This product is not intended to be used for military, aircraft, automotive, medical, life sustaining or life saving applications or any other application which can result in human injury or death. Please contact authorized Everlight sales agent for special application request.



## **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Standard LEDs - SMD category:

Click to view products by Everlight manufacturer:

Other Similar products are found below:

LTST-C190KYKT LTST-C19GD2WT LTST-N683GBEW LTW-170ZDC LTW-M140SZS40 LTW-M140ZVS 598-8110-100F 598-8170100F 598-8610-202F AAAF5060QBFSEEZGS ALMD-LB36-SV002 APT1608QGW EAST2012YA0 EASV1803BA0 SML-512VWT86A

SML-LX0606SISUGC/A SML-LXL1307SRC-TR SML-LXR851SIUPGUBC LT1ED53A AM27ZGC03 APB3025SGNC

APFA3010SURKCGKQBDC APHK1608VGCA APT2012QGW CLX6D-FKB-CN1R1H1BB7D3D3 LTST-008BGEW LTW-020ZDCG

LTW-21TS5 LTW-220DS5 598-8330-117F SML-LX0402IC-TR CMDA20AYAA7D1S CMDA16AYDR7A1X 91-21SYGD/S530-E2/TR7

598-8040-100F 598-8070-100F 598-8140-100F 598-8610-200F EAST2012GA0 EAPL3527GA5 SML-LXL1209SYC/ATR EAST2012RA0

CMD91-21VRC/TR7 SML-LXR851SGSIC-TR SML-512PWT86A SMF-2432GYC-TR LTST-C194TBKT-5A CLX6E-FKC
CH1M1D1BB7C3D3 SML-LXL0805USBC-TR SML-LX2835SYSUGCTR