



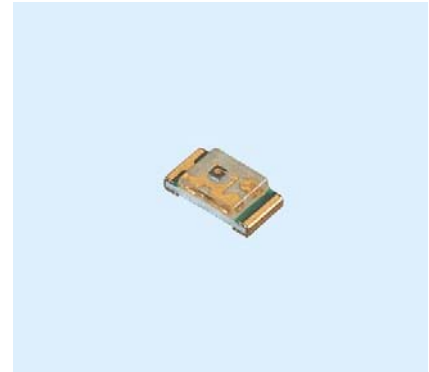
Technical Data Sheet

0805 Package Chip LED

19-217/G7C-AN1P2/3T

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 complaint



version

Descriptions

- The 19-217 SMD Taping 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.

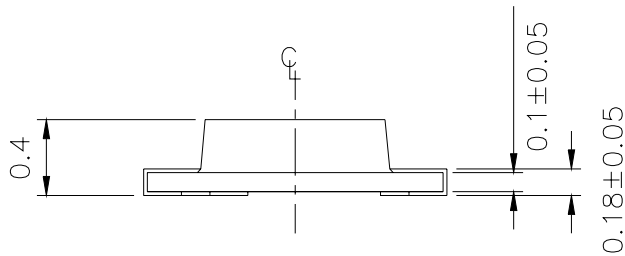
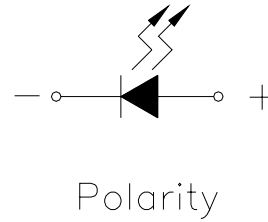
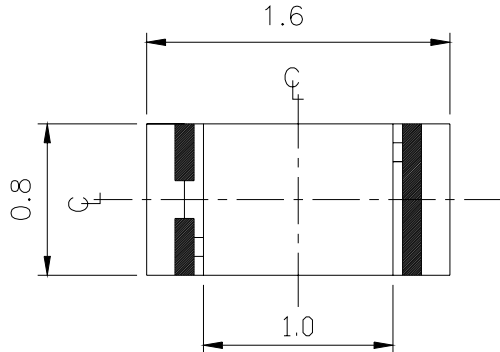
Applications

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

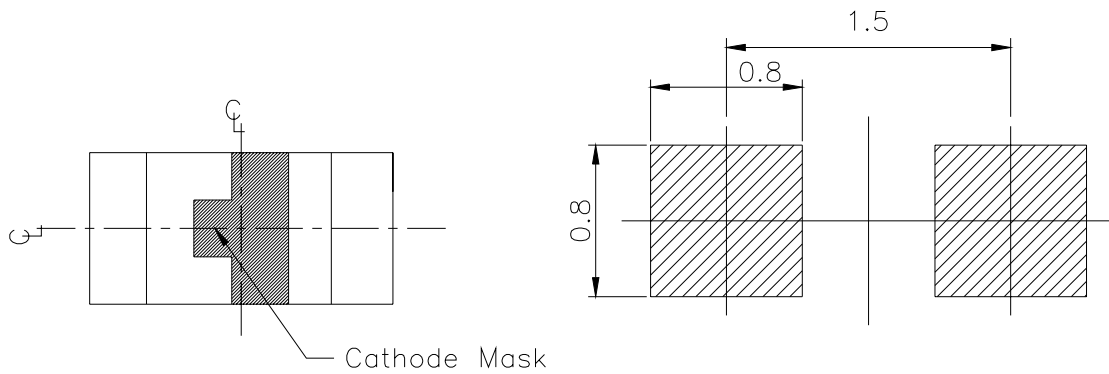
Device Selection Guide

Part No.	Chip		Lens Color
	Material	Emitted Color	
19-217/G7C-AN1P2/3T	AlGaInP	Super Yellow Green	Water Clear

Package Outline Dimensions



For reflow soldering (propose)



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

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Reverse Voltage	V _R	5	V
Forward Current	I _F	25	mA
Operating Temperature	T _{opr}	-40 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +90	°C
Electrostatic Discharge	ESD	260	V
Power Dissipation	P _d	60	mW
Peak Forward Current (Duty 1/10 @1KHz)	I _{FP}	60	mA
Soldering Temperature	T _{sol}	Reflow Soldering : 260 °C for 10 sec. Hand Soldering : 350 °C for 3 sec.	

Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I _v	28.5	-----	72.0	mcd	I _F =20mA
Viewing Angle	2θ 1/2	-----	120	-----	deg	
Peak Wavelength	λ _p	-----	575	-----	nm	
Dominant Wavelength	λ _d	569.5	-----	577.5	nm	
Spectrum Radiation Bandwidth	Δλ	-----	20	-----	nm	
Reverse Current	I _R	-----	-----	10	μA	V _R =5V

Notes:

- 1.Tolerance of Luminous Intensity ±10%
- 2.Tolerance of Dominant Wavelength ±1nm

**Bin Rang Of Dom. Wavelength**

Group	Bin	Min	Max	Unit	Condition
A	C16	569.5	571.5	nm	IF=20mA
	C17	571.5	573.5		
	C18	573.5	575.5		
	C19	575.5	577.5		

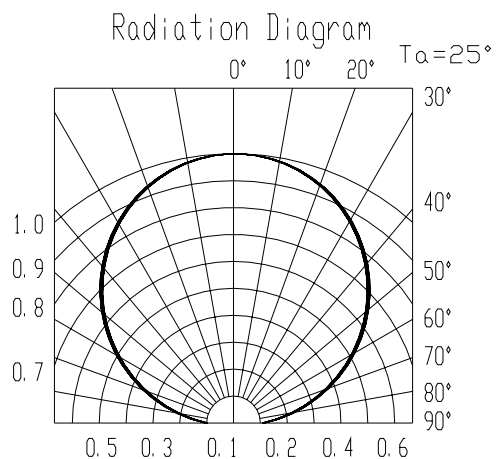
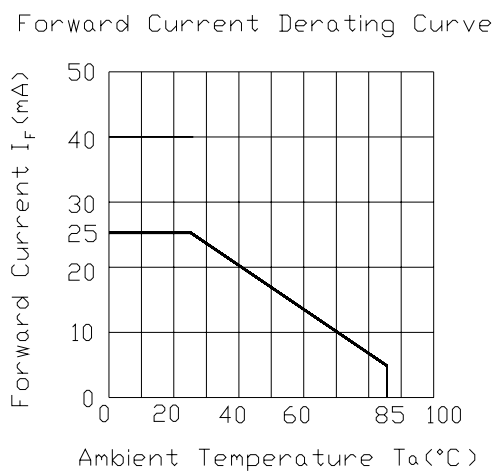
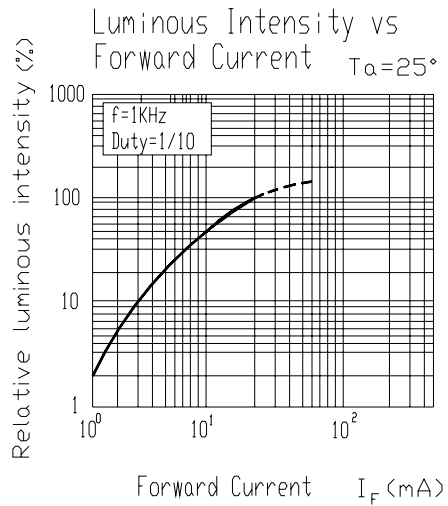
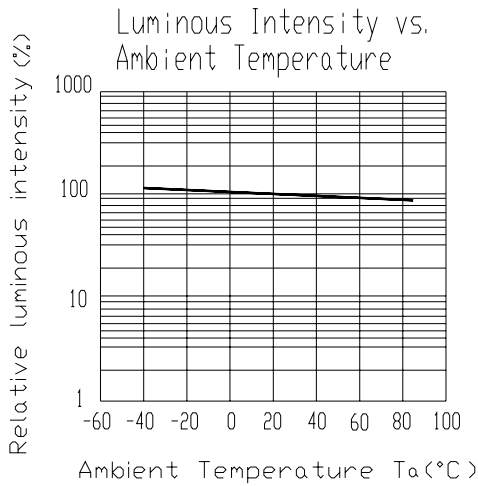
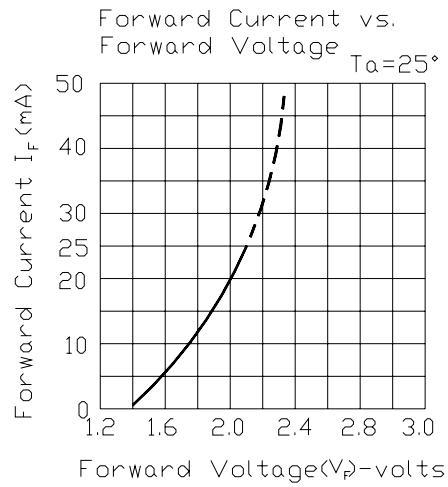
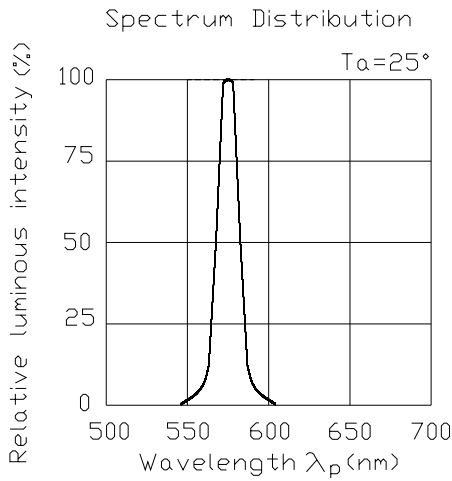
Bin Rang Of Luminous Intensity

Bin	Min	Max	Unit	Condition
N1	28.5	36.0	mcd	IF=20mA
N2	36.0	45.0		
P1	45.0	57.0		
P2	57.0	72.0		

Notes:

- 1.Tolerance of Luminous Intensity $\pm 10\%$
- 2.Tolerance of Dominant Wavelength $\pm 1\text{nm}$

Typical Electro-Optical Characteristics Curves

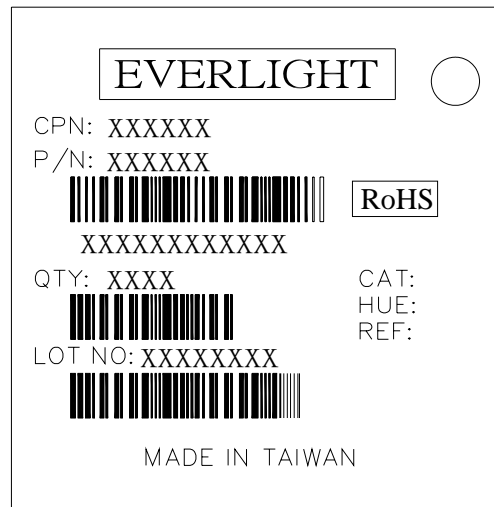


Label explanation

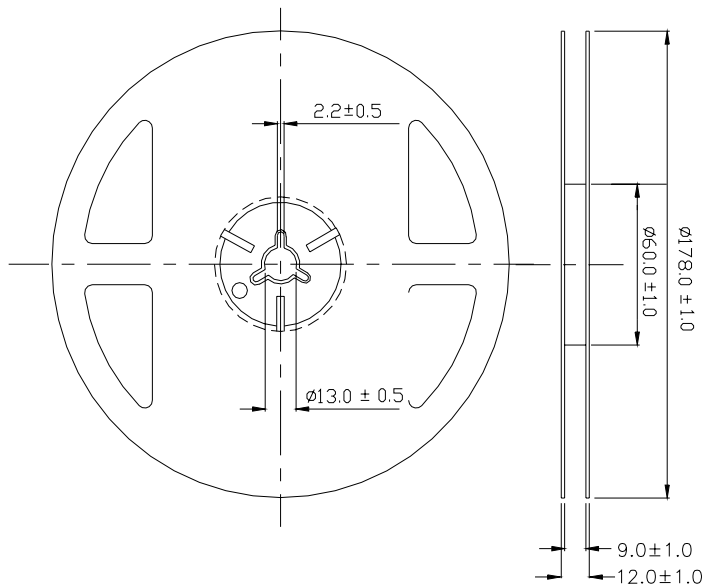
CAT: Luminous Intensity Lank

HUE: Dom. Wavelength Lank

LEF: FoLwaLd Voltage Lank

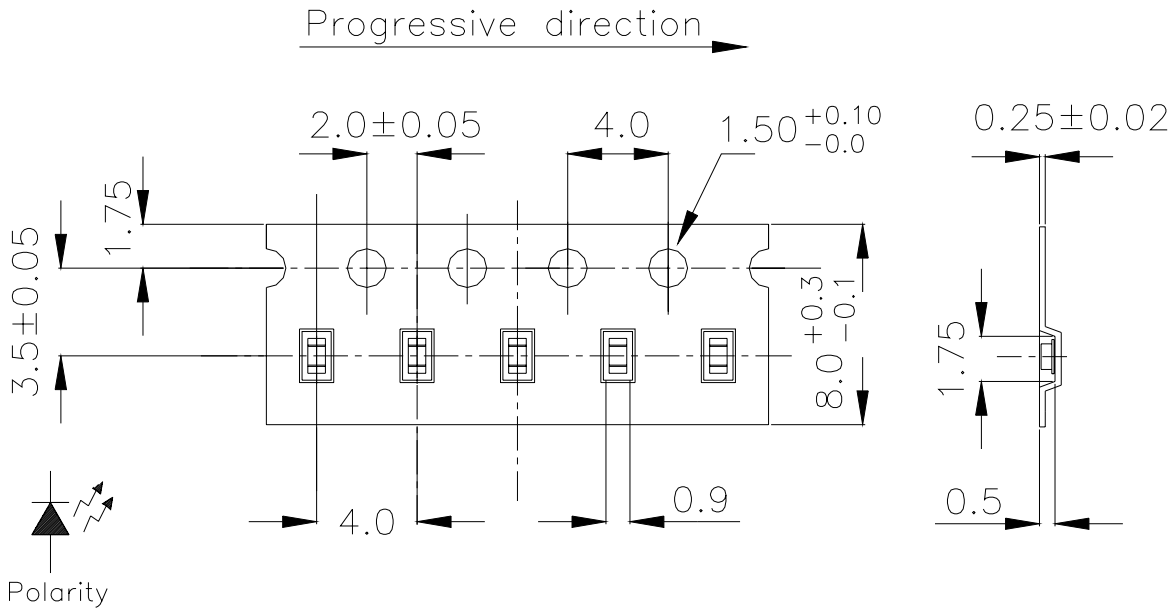


Leel Dimensions



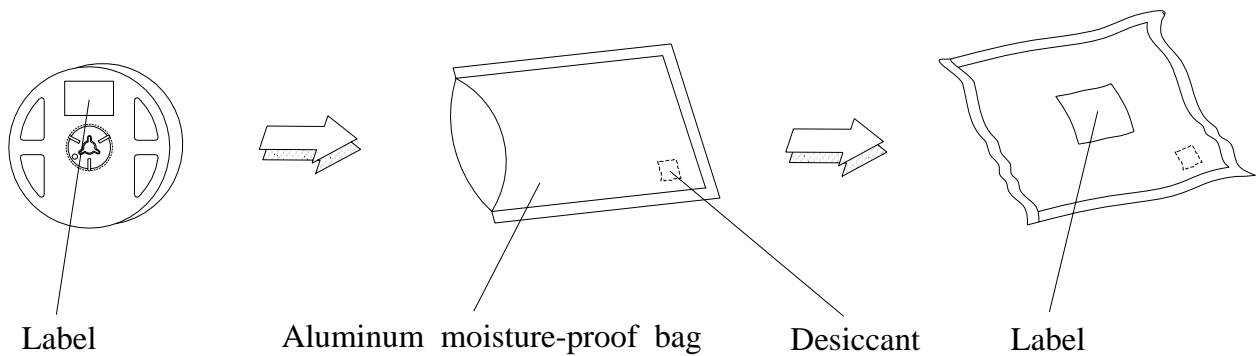
Note: The tolLances unless mentioned is $\pm 0.1\text{mm}$,Unit = mm

CaLLieL Tape Dimensions: Loaded quantity 3000 PCS peL Leel



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

Moisture Resistant Packaging



Liability Test Items And Conditions

The Liability of products shall be satisfied with items listed below.

Confidence level : 90%

LTPD : 10%

No.	Items	Test Condition	Test Hours/Cycles	Sample Size	Ac/Le
1	Leakage SoldeRing	Temp. : 260°C ±5°C Min. 5sec.	6 Min.	22 PCS.	0/1
2	Temperature Cycle	H : +100°C 15min ∫ 5 min L : -40°C 15min	300 Cycles	22 PCS.	0/1
3	Thermal Shock	H : +100°C 5min ∫ 10 sec L : -10°C 5min	300 Cycles	22 PCS.	0/1
4	High Temperature Storage	Temp. : 100°C	1000 Hrs.	22 PCS.	0/1
5	Low Temperature Storage	Temp. : -40°C	1000 Hrs.	22 PCS.	0/1
6	DC Operating Life	IF = 20 mA	1000 Hrs.	22 PCS.	0/1
7	High Temperature / High Humidity	85°C / 85%RH	1000 Hrs.	22 PCS.	0/1

Precautions for Use

1. Over-current protection

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 Before opening the package, the LEDs should be kept at 30°C or less and 90%RH or less.

2.3 After opening the package: The LED's shelf life is 1 year under 30 deg C or less and 60% RH or less.

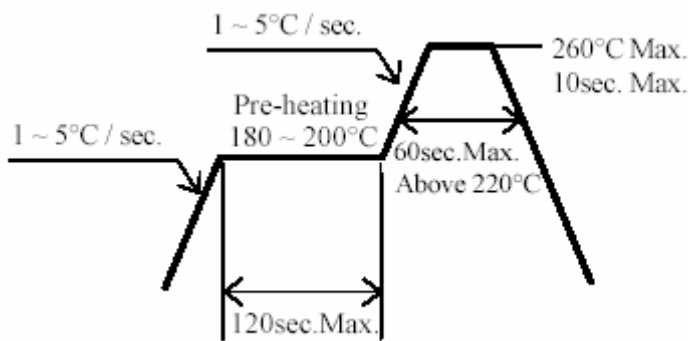
If unused LEDs remain, it should be stored in moisture proof packages.

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.

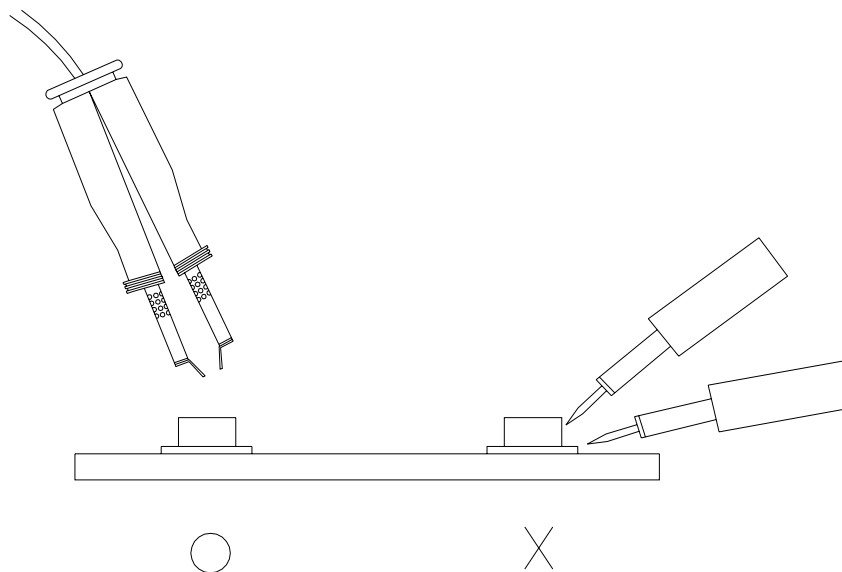
3.4 After soldering, do not warp the circuit board.

4.SoldeLing iLon

Each teLminal is to go to the tip of soldeLing iLon tempeLatuLe less than 280°C foL 3 seconds within once in less than the soldeLing iLon capacity 25W. Leave two seconds and moLe inteLvals, and do soldeLing of each teLminal. Be caLeful because the damage of the pLoduct is often staLted at the time of the hand soldeL.

5.LepaiLing

LepaiL should not be done afteL the LEDs have been soldeLed. When LepaiLing is unavoidable, a double-head soldeLing iLon should be used (as below figuLe). It should be confiLmed befoLehand whetheL the chaLacteListics of the LEDs will oL will not be damaged by LepaiLing.



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