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DATA SHEET

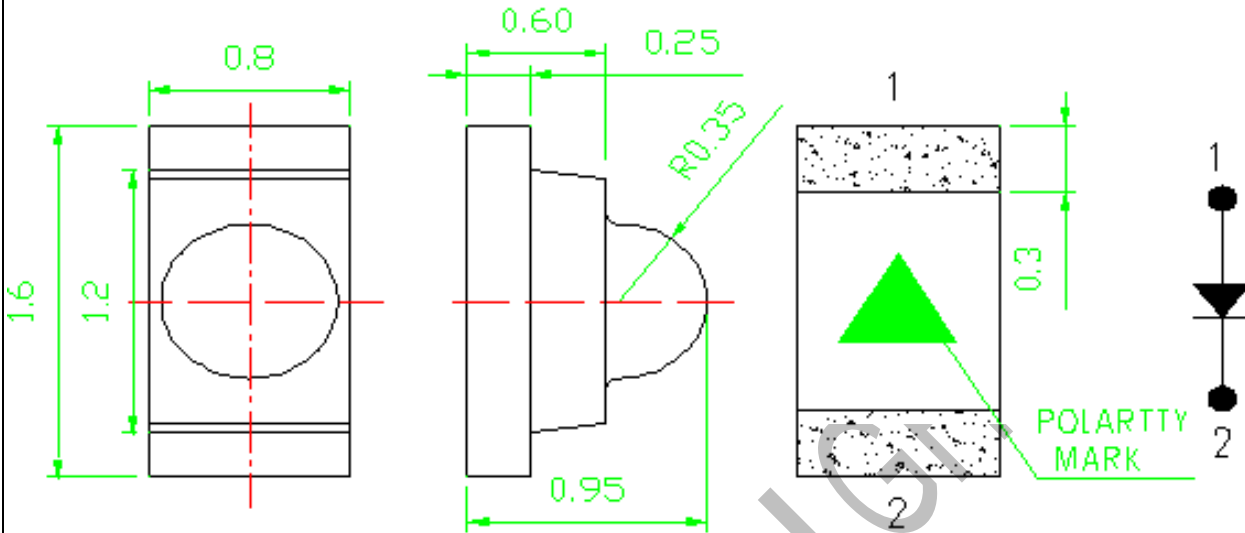
PART NO. : SZC19DJECT

REV : A / 0

CUSTOMER'S APPROVAL : \_\_\_\_\_

DCC : \_\_\_\_\_

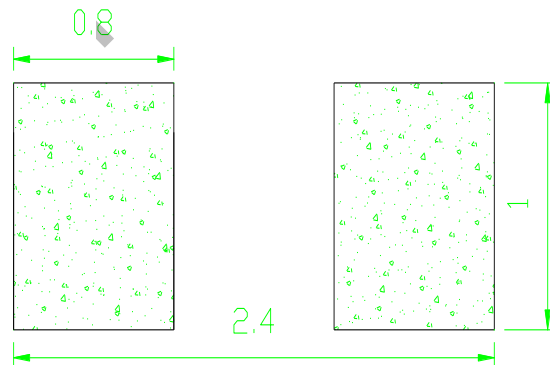
PACKAGE DIMENSIONS



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1$  (0.004") unless otherwise noted.
3. Specifications are subject to change without notice.

Recommended Soldering Pattern (Unit: mm ; Tolerance: +/-0.1)



**FEATURES**

- \* 1.6\*0.8\*0.95 mm SMD LED
- \* Long operating life
- \* Low Power Consumption
- \* Low voltage DC operated

**CHIP MATERIALS**

- \* Dice Material : AlGaInP
- \* Light Color : Red
- \* Lens Color : Water Clear

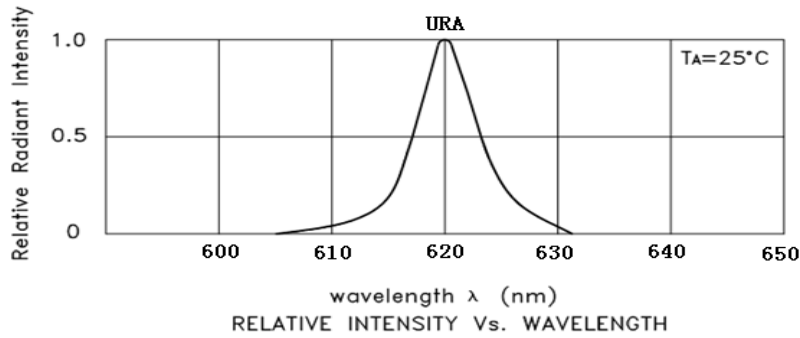
**ABSOLUTE MAXIMUM RATING : ( Ta = 25°C )**

SYMBOL	PARAMETER	Rating	UNIT
If	Forward Current	30	mA
PD	Power dissipation	75	mW
Ifp	Peak Forward Current (1/10 duty cycle 0.1ms)	100	mA
VR	Reverse Voltage	5	V
Topr	Operating Temperature Range	-40 ~ + 85	°C
Tstg	Storage Temperature Range	-40 ~ + 85	°C

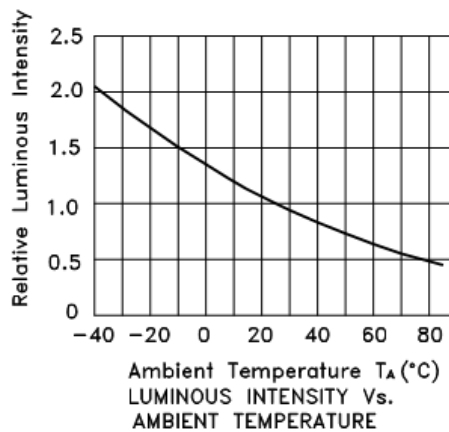
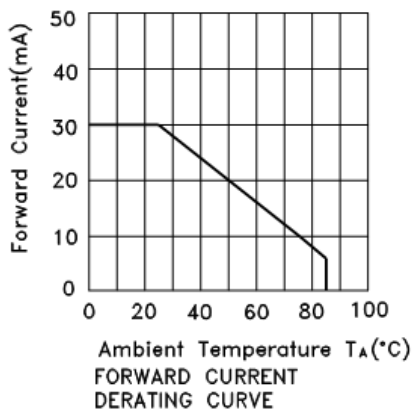
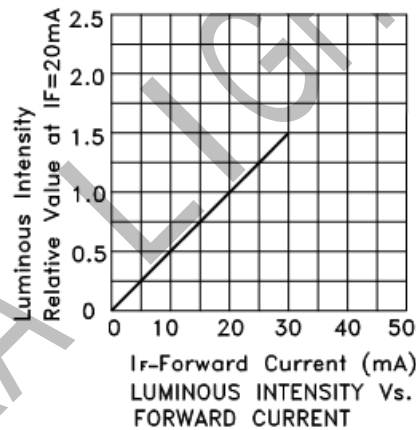
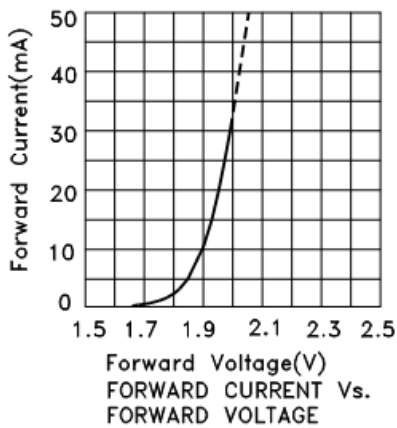
**ELECTRO-OPTICAL CHARACTERISTICS : ( Ta = 25°C )**

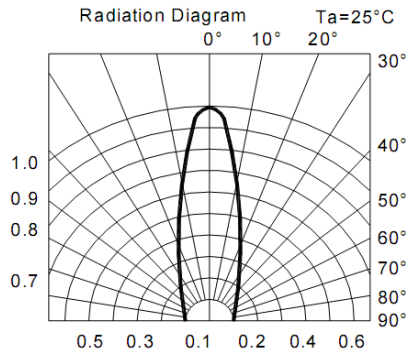
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	Iv	600		1200	mcd	IF=20mA
Dominant Wavelength	$\lambda_d$	618	625	628	nm	IF=20mA
Spectral Line Half-width	$\Delta\lambda_{1/2}$		35		nm	IF=20mA
Viewing Angle	$2\theta_{1/2}$		30		PF	IF=20mA
Forward Voltage	VF		2.0	2.4	V	IF=20mA
Reverse Current	IR			10	$\mu$ A	VR=7V

Typical Electro-Optical Characteristics Curves  
(25°C Ambient Temperature Unless Otherwise Noted)



Super Bright Orange



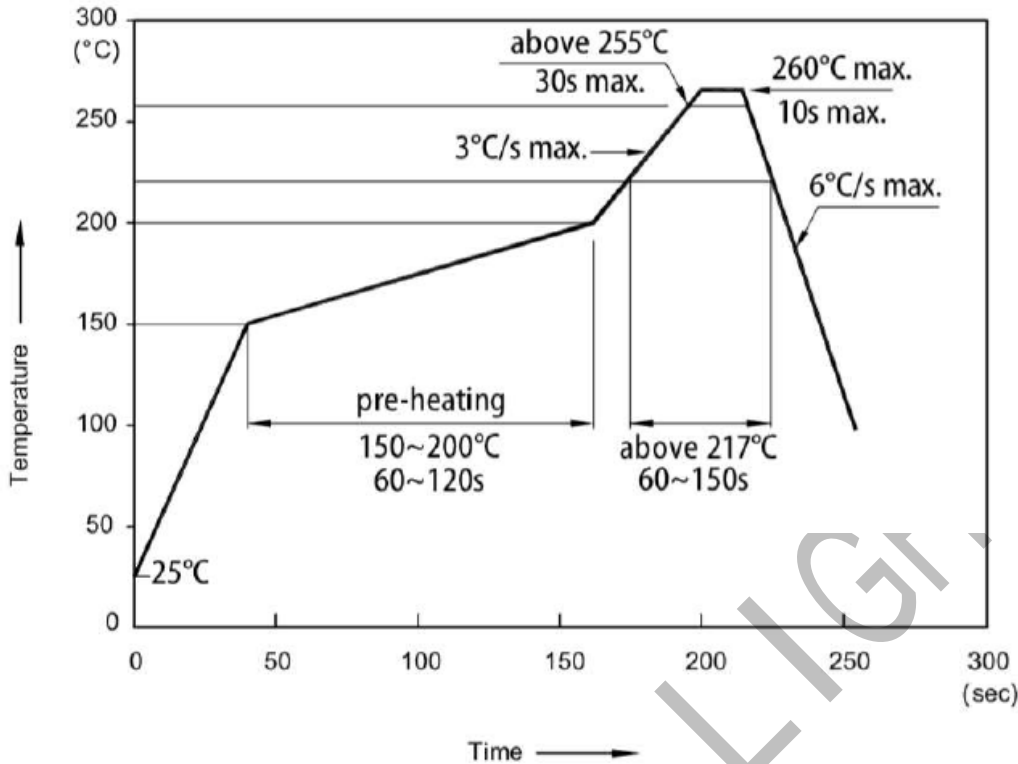


**RELIABILITY**

Test Items and Results

Test Items	Reference	Test Conditions	Time	Quantity	Criterion
Thermal Shock	MIL-STD-202G	-40°C (30min) -100°C (30min)	100 Cycles	22	0/22
Temperature And Humidity Cyclic	JEITA ED-4701 200 203	-10°C~65°C ; 0%~90%RH	10cycles	22	0/22
High Temperature Storage	JEITA ED -4071 200 201	Ta=100°C	1000H	22	0/22
Low Temperature Storage	JEITA ED -4071 200 202	Ta=-40°C	1000H	22	0/22
High Temperature High Humidity Storage	JEITA ED -4071 100 103	Ta=60°C ; RH=90%	1000H	22	0/22
High Temperature Life Test	JESD22-A108D	Ta=80°C	1000H	22	0/22
Life Test	JESD22-A108D	Ta=25°C IF=20mA	1000H	22	0/22
Resistance to Soldering Heat	GB/T 4937, II , 2.2&2.3	Tsol*=(240±5) °C 10secs	2 times	22	0/22

**Reflow Soldering Instructions**



**Precautions**

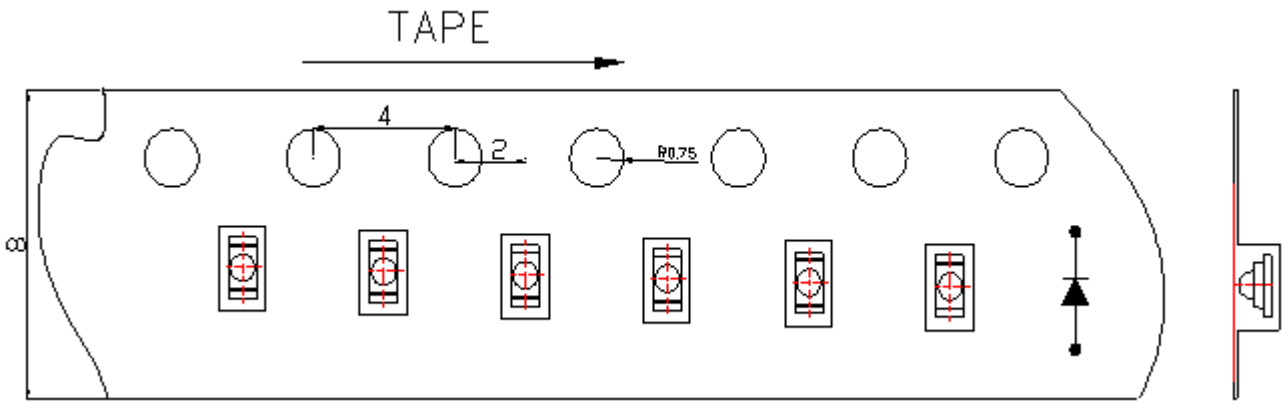
**1. Storage:**

- Moisture proof and anti-electrostatic package with moisture absorbent material is used, to keep moisture to a minimum.
- Before opening the package, the product should be kept at 30°C or less and humidity less than 60% RH, and be used within a year.
- After opening the package, the product should be stored at 30°C or less and humidity less than 10%RH. It is recommended that the product be operated at the workshop condition of 30°C or less and humidity less than 60%RH.
- If the moisture absorbent material has faded away or the LEDs have exceeded the storage time, baking treatment should be performed based on the following condition: (70±5)°C for 24 hours.

**2. Static Electricity:**

Static electricity or surge voltage damages the LEDs. Damaged LEDs will show some unusual characteristics such as the forward voltage becoming lower, or the LEDs do not light at the low current, even not light. All devices, equipment and machinery must be properly grounded. At the same time, it is recommended that wrist bands or anti-electrostatic gloves, anti-electrostatic containers be used when dealing with the LEDs.

The LEDs are packed in cardboard boxes after taping.  
Tape Specification:4,000pcs Per Reel





1.6\*0.8\*0.95 mm SMD LED

SZC19DJECT

REV:A / 0

**Bin Range of Luminous Intensity**

Bin	Min	Max	Unit	Condition
L1	600	900	mcd	IF =20mA
L2	900	1200		

**Bin Range of Forward Voltage**

Bin	Min	Max	Unit	Condition
V1	1.9	2.0	V	IF = 20mA
V2	2.0	2.1		
V3	2.1	2.2		
V4	2.2	2.3		
V5	2.3	2.4		

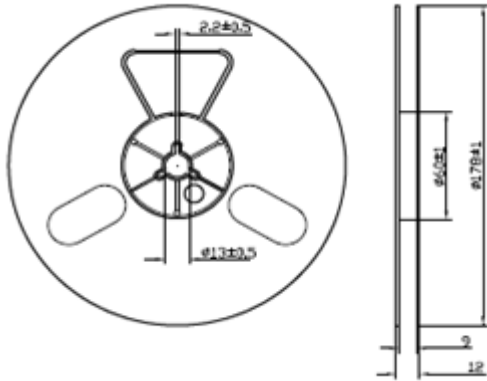
**Bin Range of Wavelength**

Bin	Min	Max	Unit	Condition
R1	618	620	nm	IF = 20mA
R2	620	622		
R3	622	624		
R4	624	626		
R5	626	628		

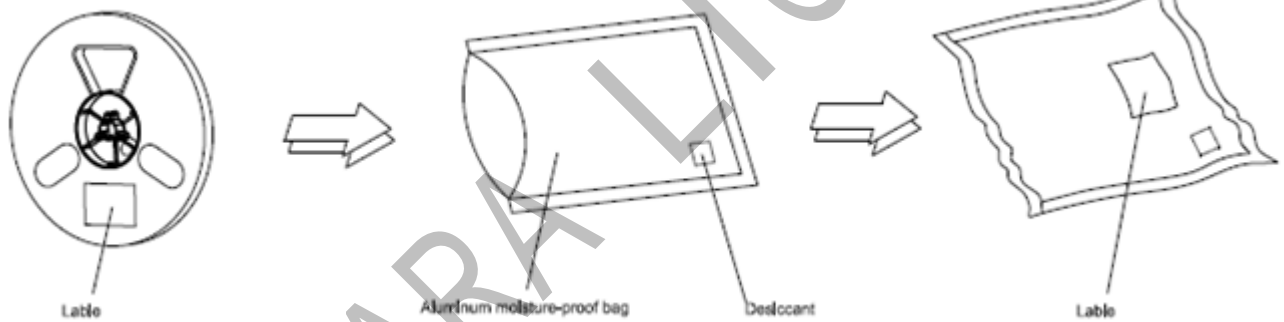
Notes: Tolerance of Luminous Intensity:  $\pm 10\%$   
Tolerance of Forward Voltage:  $\pm 0.1V$ .  
Tolerance of Wavelength:  $\pm 1nm$



**Reel Dimensions**



**Moisture Resistant Packaging**



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