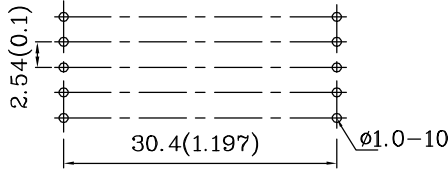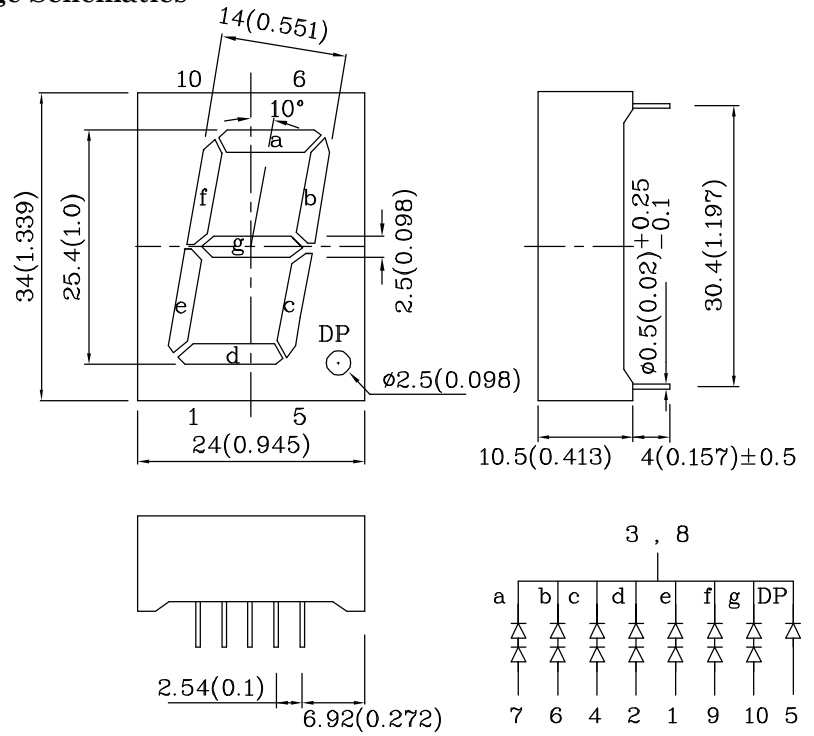# SunLED

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Features

● Low power consumption

● Robust package

● I.C. Compatible

● Standard configuration: Gray face w/ white segments

● Optional black face provides superior color contrast
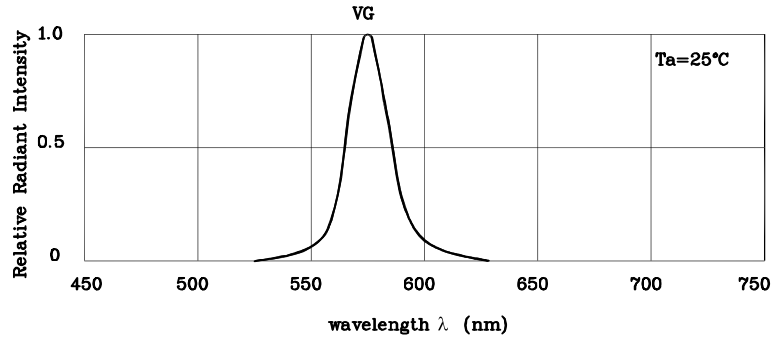
● RoHS Compliant

Package Schematics

Notes:
1. All dimensions are in millimeters (inches), Tolerance is ± 0.25(0.01")unless otherwise noted.
2. Specifications are subject to change without notice.

RECOMMENDED PCB LAYOUT

Absolute Maximum Ratings (T_A=25°C)		VG (AlGaInP)	Unit
Reverse Voltage (Per Chip)	V_R	5	V
Forward Current (Dp)	I_F	30 (30)	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width (Dp)	i_{FS}	150 (150)	mA
Power Dissipation (Per Chip)	P_D	75	mW
Operating Temperature	T_A	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	
Lead Solder Temperature [2mm Below Package Base]		260°C For 3-5 Seconds	

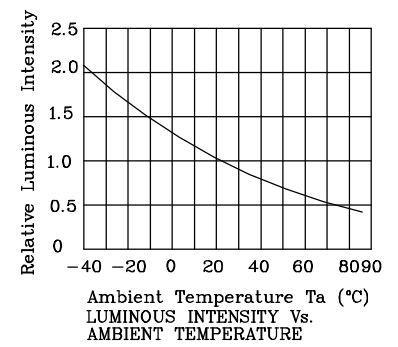| Operating Characteristics (T_A=25°C)		VG (AlGaInP)	Unit
Forward Voltage (Typ.) (Dp) (I_F=10mA)	V_F	4.0 (2.0)	V
Forward Voltage (Max.) (Dp) (I_F=10mA)	V_F	5.0 (2.5)	V
Reverse Current (Max.) (Per Chip) (V_R=5V)	I_R	10 (10)	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I_F=10mA)	λP	574*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I_F=10mA)	λD	570*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I_F=10mA)	$\triangle \lambda$	20	nm
Capacitance (Typ.) (V_F=0V, f=1MHz)	C	15	pF

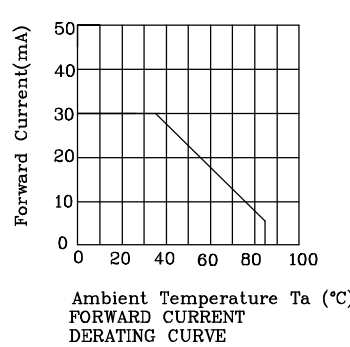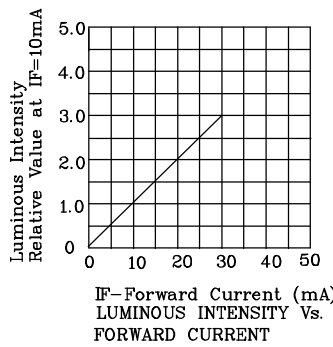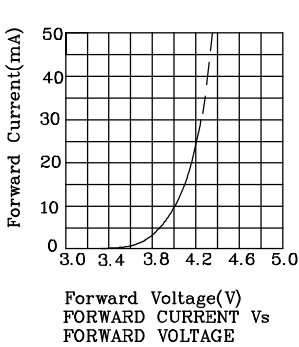| Part Number	Emitting Color	Emitting Material	Luminous Intensity CIE127-2007* (IF=10mA) ucd		Wavelength CIE127-2007* nm λP	Description
			min.	typ.		
XDVG25C	Green	AlGaInP	52000 14000*	94990 32990*	574 *	Common Cathode, Rt. Hand Decimal.

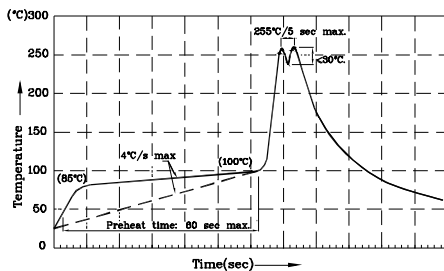*Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

Jan 18,2014

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VG

RELATIVE INTENSITY Vs. CIE WAVELENGTH

❖ **VG**

FORWARD CURRENT Vs FORWARD VOLTAGE

LUMINOUS INTENSITY Vs. FORWARD CURRENT

FORWARD CURRENT DERATING CURVE

LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

FORWARD CURRENT Vs FORWARD VOLTAGE

LUMINOUS INTENSITY Vs. FORWARD CURRENT

FORWARD CURRENT DERATING CURVE

LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE
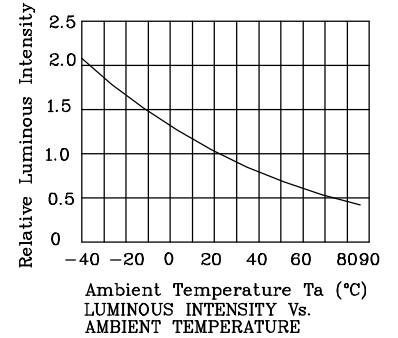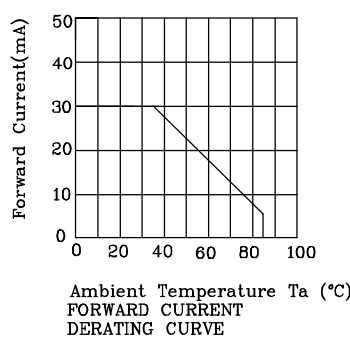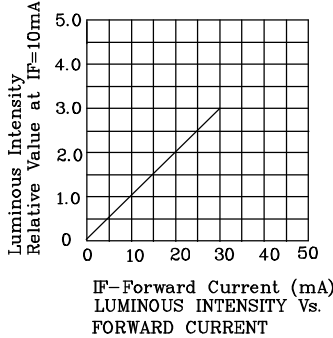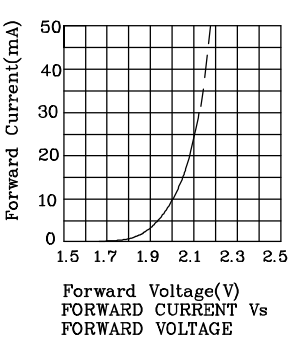
Wave Soldering Profile for Thru-Hole Products (Pb-Free Components)

Notes:
1. Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C
2. Peak wave soldering temperature between 245°C ~ 255°C for 3 sec (5 sec max).
3. Do not apply stress to the epoxy resin while the temperature is above 85°C.
4. Fixtures should not incur stress on the component when mounting and during soldering process.
5. SAC 305 solder alloy is recommended.
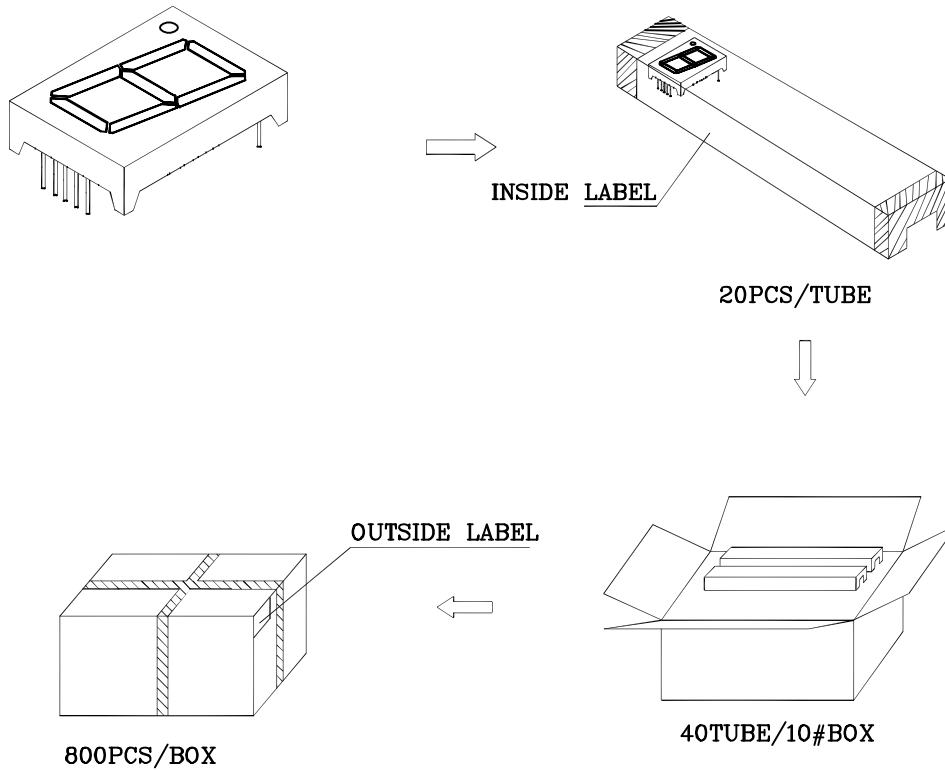6. No more than one wave soldering pass.

Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux, or wavelength),

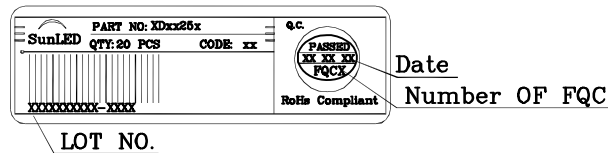the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm

2. Luminous Intensity / Luminous Flux: +/-15%

3. Forward Voltage: +/-0.1V

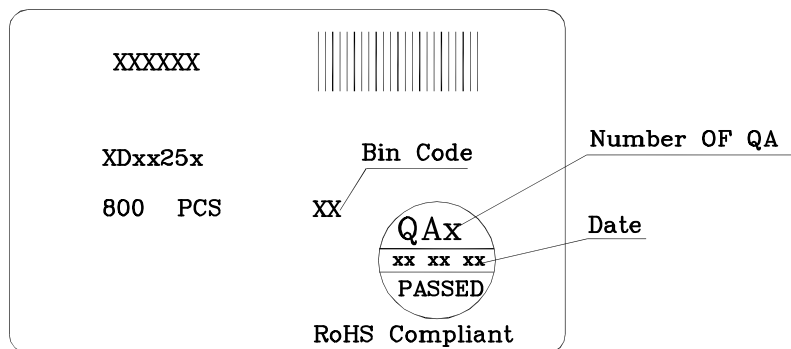Note: Accuracy may depend on the sorting parameters.

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PACKING & LABEL SPECIFICATIONS

INSIDE LABEL

20PCS/TUBE

OUTSIDE LABEL

40TUBE/10#BOX

800PCS/BOX

Inside Label On IC-tube

PART NO: XDxx25x
SunLED   QTY:20 PCS   CODE: xx

Q.C.

PASSED
XX XX XX
FQCX

RoHs Compliant

Date
Number OF FQC

XXXXXXXXX-XXXX

LOT NO.

Outside Label On Box

XXXXXX

XDxx25x

800   PCS   XX

Bin Code

Number OF QA

QAx
xx xx xx
PASSED

Date

RoHS Compliant

TERMS OF USE

1. Data presented in this document reflect statistical figures and should be treated as technical reference only.
2. Contents within this document are subject to improvement and enhancement changes without notice.
3. The product(s) in this document are designed to be operated within the electrical and environmental specifications indicated on the datasheet.
   User accepts full risk and responsibility when operating the product(s) beyond their intended specifications.
4. The product(s) described in this document are intended for electronic applications in which a person's life is not reliant upon the LED. Please
   consult with a SunLED representative for special applications where the LED may have a direct impact on a person's life.
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