

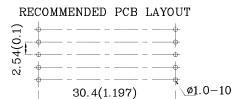
Part Number: XDCBD25A

25.4mm (1.0 ") SINGLE DIGIT NUMERIC DISPLAY

Features

- \bullet Low power consumption
- \bullet Robust package
- I.C. Compatible
- Standard configuration: Gray face w/ white segments
- Optional black face provides superior color contrast
- RoHS Compliant

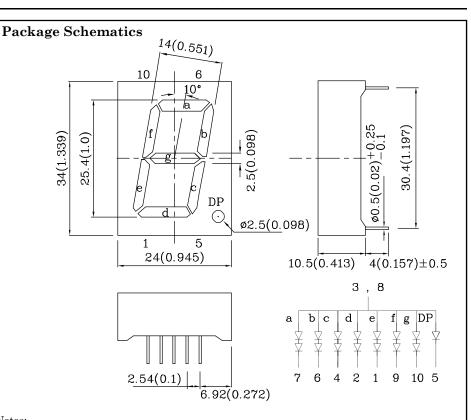






ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE

DEVICES



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.

Absolute Maximum Ratings (T _A =25°C)		CBD (InGaN)	Unit	
Reverse Voltage (Per Chip)	V_{R}	5	V	
Forward Current (Dp)	$I_{\rm F}$	30 (30)	mA	
Forward Current (Peak) 1/10Duty Cycle 0.1ms Pulse Width (Dp)	ifs	150 (150)	mA	
Power Dissipation (Per Chip)	\mathbf{P}_{D}	120	mW	
Operating Temperature	$T_{\rm A}$	$-40 \sim +85$	°C	
Storage Temperature	Tstg	$-40 \sim +85$		
Electrostatic Discharge Threshold (HBM)		250	V	
Lead Solder Temperature [2mm Below Package Base]	260°C For 3-5 Seconds			

Operating Characteristics (T _A =25°C)		CBD (InGaN)	Unit
Forward Voltage (Typ.) (Dp) (IF=10mA)	$V_{\rm F}$	6.0 (3.0)	V
Forward Voltage (Max.) (Dp) (IF=10mA)	$V_{\rm F}$	8 (4.0)	V
Reverse Current (Max.) (Per Chip) (VR=5V)	I_R	50	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) (IF=10mA)	λΡ	465*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (IF=10mA)	λD	460*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (IF=10mA)	$ riangle \lambda$	25	nm
Capacitance (Typ.) (VF=0V, f=1MHz)	С	100	pF

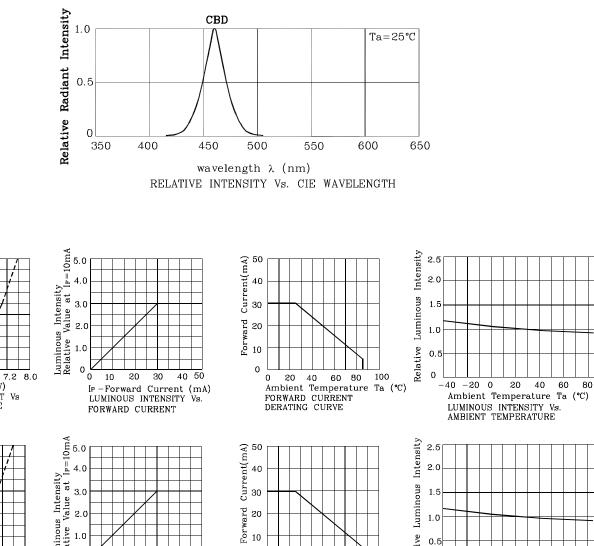
Part Number	Emitting Color	Emitting Material	Luminous Intensity CIE127-2007* (IF=10mA) ucd		Wavelength CIE127-2007* nm λΡ	Description
			min.	typ.		
XDCBD25A	Blue	InGaN	21000 *	53990 *	460 *	Common Anode, Rt. Hand Decimal

*Luminous intensity value and wavelength are in accordance with CIE127-2007 standards. Jan 18,2014

XDSB5646 V2-Z Layout: Maggie L.



25.4mm (1.0 ") SINGLE DIGIT NUMERIC DISPLAY



Forward Voltage(V) FORWARD CURRENT FORWARD VOLTAGE 50 Forward Current(mA) 40 30 20 10

> 2.8 3.2 3.6 4.0

Forward Voltage(V)

FORWARD CURRENT FORWARD VOLTAGE

2.4

6.4

٧s

Vs.

♦ CBD

50

40

30

20

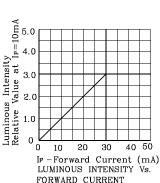
10

0

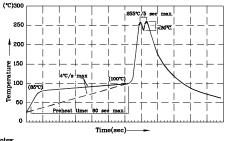
0 L 2.0

4.0 4.8 5.6

Forward Current(mA)



Wave Soldering Profile for Thru-Hole Products (Pb-Free Components)



Notes: 1.Recommend pre-heat temperature of 105°C or less (as measured thermocouple attached to the LED pins) prior to immersion in t wave with a maximum solder bath temperature of 260°C 2.Peak wave soldering temperature between 245°C ~ 255°C for 3 s maximum sol with a (5

le the temperature is above

 Peak wave powering in the poxy resin
Do not apply stress to the epoxy resin
Pixtures should not incur stress on th during soldering process.
SAG2 305 solder alloy is recommended.
No more than one wave soldering pass resin on the nting

Remarks:

0

0

20 40 60 80 100

Ambient Temperature

FORWARD CURRENT

DERATING CURVE

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

1.0

0.8

0

40

-20 0

20 40 60

LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

Ambient Temperature Ta (°C)

Relative

Та (°С)

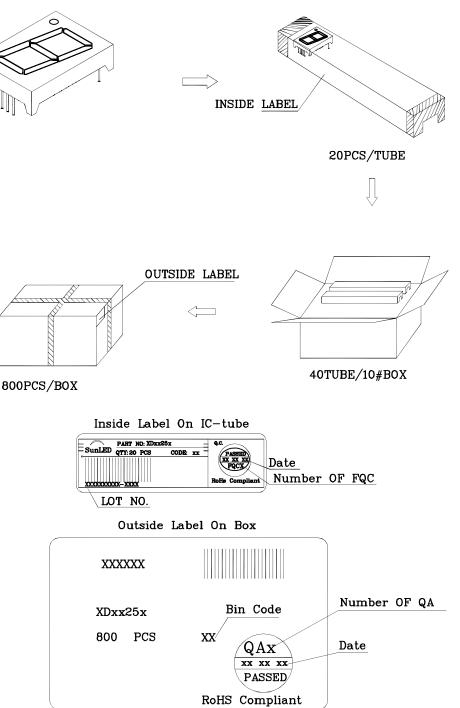
- the typical accuracy of the sorting process is as follows:
- 1. Wavelength: +/-1nm
- 2. Luminous Intensity / Luminous Flux: +/-15%
- 3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

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PACKING & LABEL SPECIFICATIONS



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.
- 5. The contents within this document may not be altered without prior consent by SunLED.
- 6. Additional technical notes are available at <u>http://www.SunLEDusa.com/TechnicalNotes.asp</u>