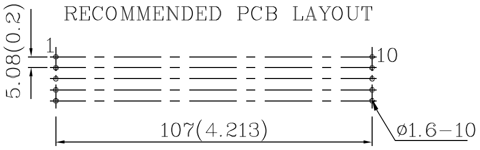
www.SunLEDusa.com

Part Number: XDUG100C-A

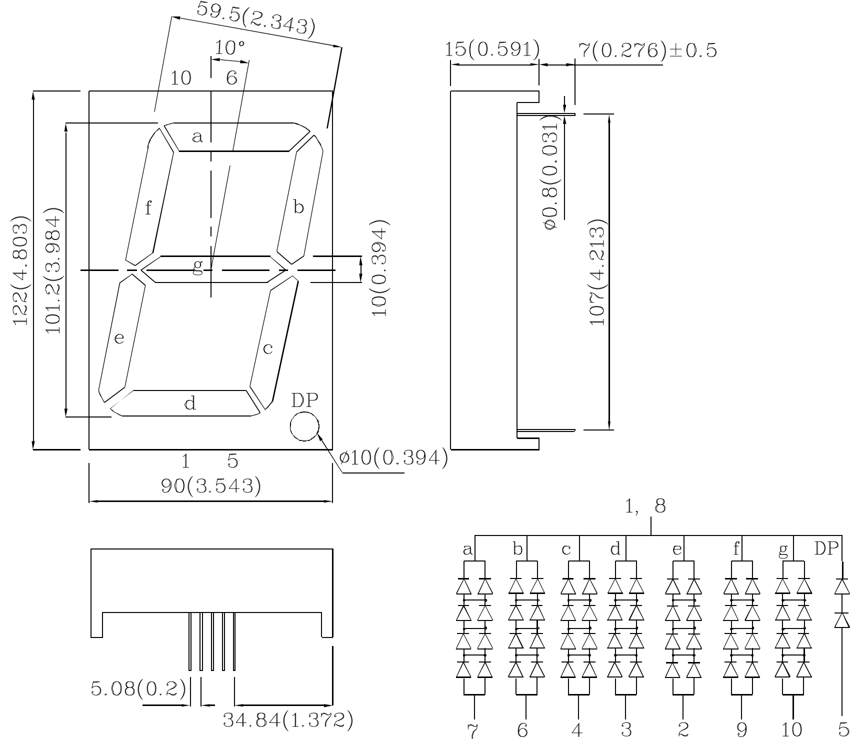
101.2mm (4.0") SINGLE DIGIT NUMERIC DISPLAY

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

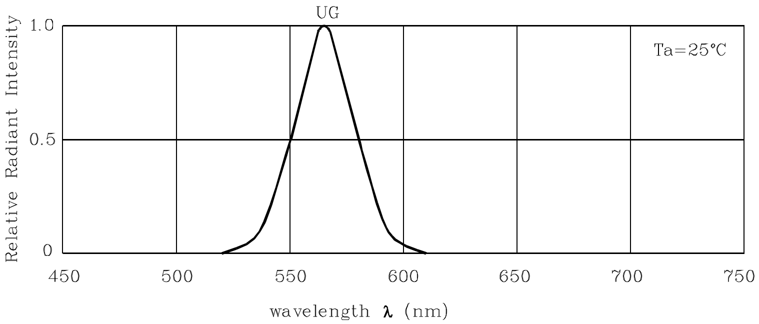


Notes:
1. All dimensions are in millimeters (inches), Tolerance is ±0.25(0.01")unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Ratings (T_A=25°C)		UG (GaP)	Unit
Reverse Voltage Per Segment or (Dp)	V_R	5 (5)	V
Forward Current Per Segment or (Dp)	I_F	50 (25)	mA
Forward Current (Peak) Per Segment or (Dp) 1/10 Duty Cycle 0.1ms Pulse Width	i_{FS}	280 (140)	mA
Power Dissipation Per Segment or (Dp)	P_D	500 (125)	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		

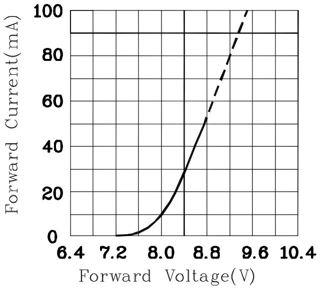
Operating Characteristics (T_A=25°C)		UG (GaP)	Unit
Forward Voltage (Typ.) Per Segment or (Dp) (I_F=10mA)	V_F	8 (4.0)	V
Forward Voltage (Max.) Per Segment or (Dp) (I_F=10mA)	V_F	10 (5.0)	V
Reverse Current (Max.) Per Segment or (Dp) (V_R=5V)	I_R	20 (10)	uA
Wavelength of Peak Emission (Typ.) (I_F=10mA)	λP	565	nm
Wavelength of Dominant Emission (Typ.) (I_F=10mA)	λD	568	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I_F=10mA)	△λ	30	nm
Capacitance (Typ.) (V_F=0V, f=1MHz)	C	15	pF

Part Number	Emitting Color	Emitting Material	Luminous Intensity (I_F=10mA) ucd		Wavelength nm λP	Description
			min.	typ.		
XDUG100C-A	Green	GaP	14000	35990	565	Common Cathode, Rt. Hand Decimal.

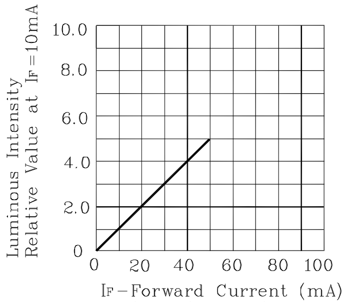


RELATIVE INTENSITY Vs. WAVELENGTH

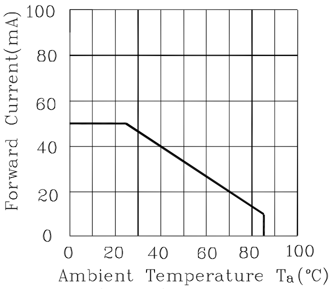
❖ UG



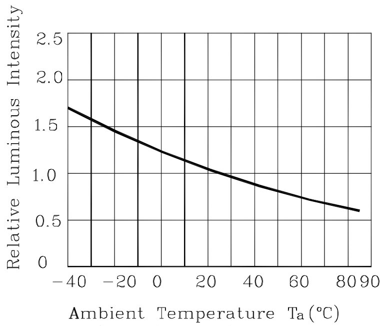
FORWARD CURRENT Vs
FORWARD VOLTAGE



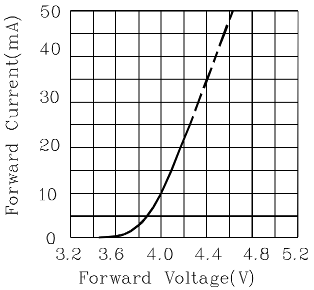
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



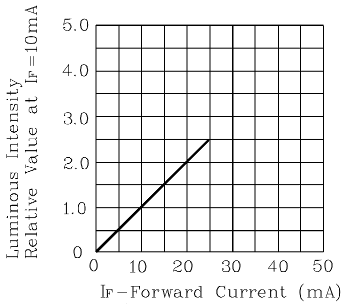
FORWARD CURRENT
DERATING CURVE



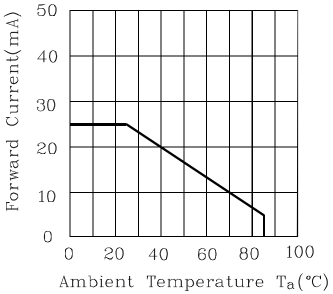
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



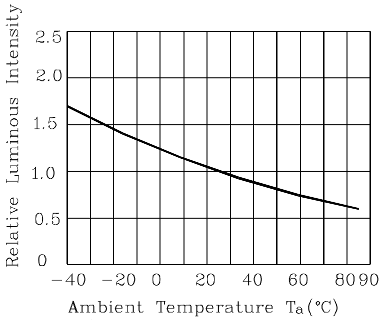
FORWARD CURRENT Vs
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT

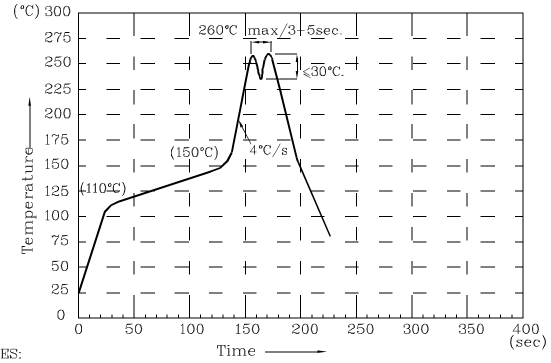


FORWARD CURRENT
DERATING CURVE



LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

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



NOTES:

1. Recommend the wave temperature 245°C~260°C. The maximum soldering temperature should be less than 260°C.
2. Do not apply stress on epoxy resins when temperature is over 85°C.
3. The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
4. During wave soldering, the PCB top-surface temperature should be kept below 105°C.
5. No more than once.

Remarks:

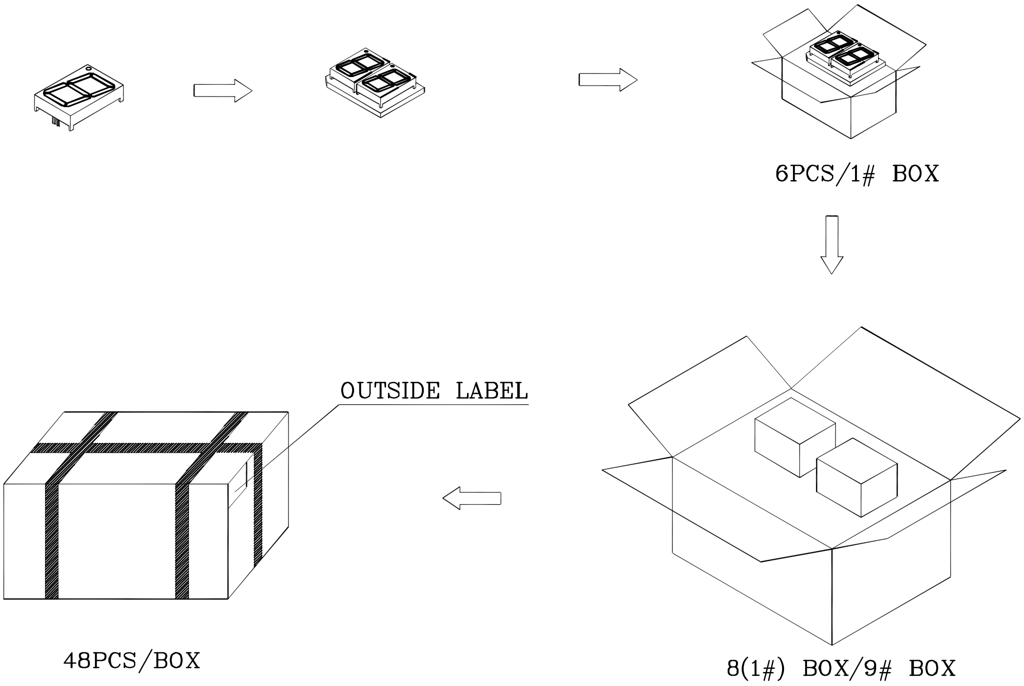
If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux, or wavelength),

the typical accuracy of the sorting process is as follows:

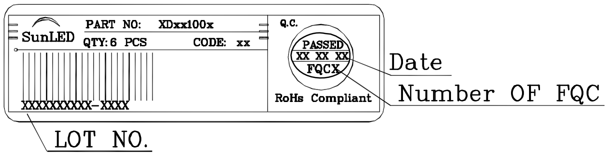
1. Wavelength: +/-1nm
2. Luminous Intensity / Luminous Flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

PACKING & LABEL SPECIFICATIONS



Inside Label on 1#BOX



Outside Label on Box