SunLED
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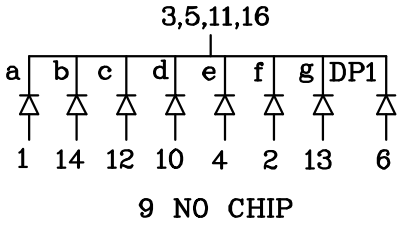
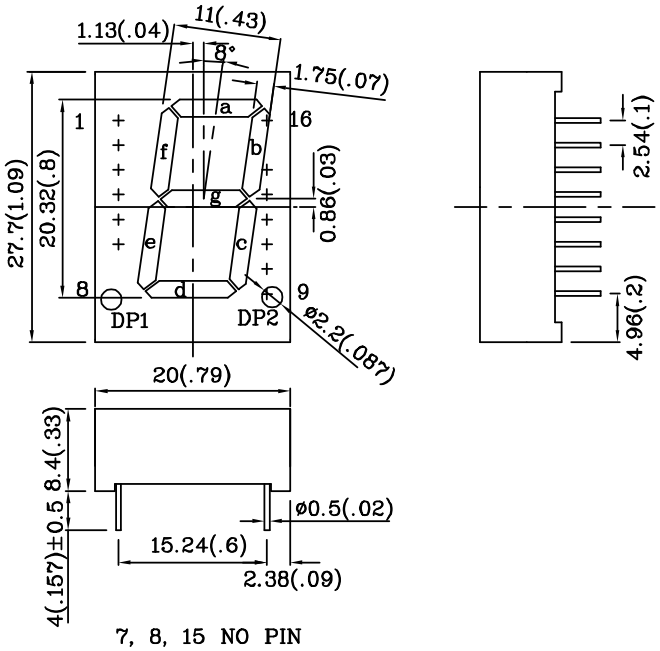
Part Number: **XDUG20C-B**

20.32mm (0.8") SINGLE DIGIT NUMERIC DISPLAY

Features

- 0.8 INCH DIGIT HEIGHT.
- EXCELLENT CHARACTER APPEARANCE.
- HIGH LIGHT OUTPUT.
- EASY MOUNTING ON P.C. BOARDS OR SOCKETS.
- I.C. COMPATIBLE.
- CATEGORIZED FOR LUMINOUS INTENSITY, YELLOW AND GREEN CATEGORIZED FOR COLOR.
- MECHANICALLY RUGGED.
- STANDARD : GRAY FACE, WHITE SEGMENT.
- RoHS COMPLIANT.





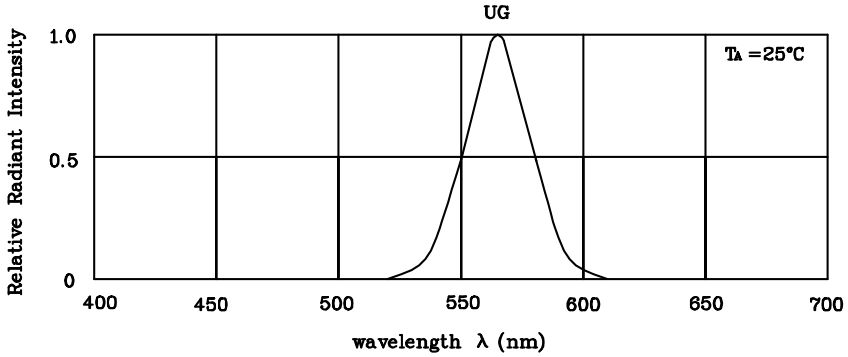
Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25(0.01") unless otherwise noted.

Absolute Maximum Ratings (T_A=25°C)		**UG (GaP)**	**Unit**
Reverse voltage	V_R	5	V
Forward current	I_F	25	mA
Forward current (peak) 1/10Duty cycle 0.1ms pulse width	i_{FS}	140	mA
Power dissipation	P_T	105	mW
Operating temperature	T_A	-40 ~ +85	°C
Storage temperature	Tstg	-40 ~ +85	
Lead solder temperature [2mm below package base]	260°C For 5 Seconds		

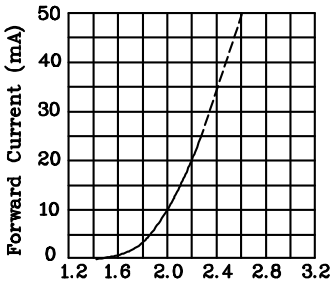
Operating Characteristics (TA=25°C)		**UG (GaP)**	**Unit**
Forward Voltage (Typ.) (I_F=10mA)	VF	2.0	V
Forward Voltage (Max.) (I_F=10mA)	VF	2.5	V
Reverse Current (V_R=5V)	IR	10	uA
Wavelength of Peak Emission (I_F=10mA)	λ peak	565	nm
Wavelength of Dominant Emission (I_F=10mA)	λ D	568	nm
Spectral Line Full Width At Half-Maximum (I_F=10mA)	Δλ	30	nm
Capacitance (V_F=0V, f=1MHz)	C	15	pF

Part Number	Emitting Color	Emitting Material	Luminous Intensity (IF=10mA) ucd min.	Luminous Intensity (IF=10mA) ucd typ.	Wavelength nm λ P	Description
XDUG20C-B	Green	GaP	1900	10490	565	Common Cathode, Lt. Hand Decimal

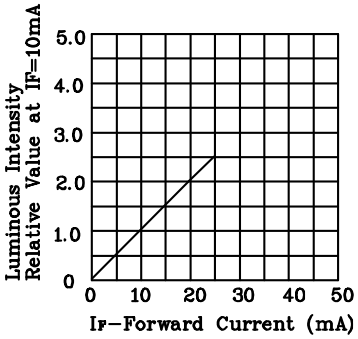


RELATIVE INTENSITY Vs. WAVELENGTH

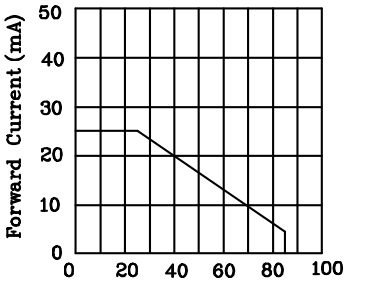
❖ **UG**



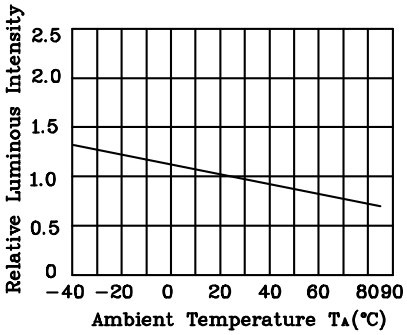
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



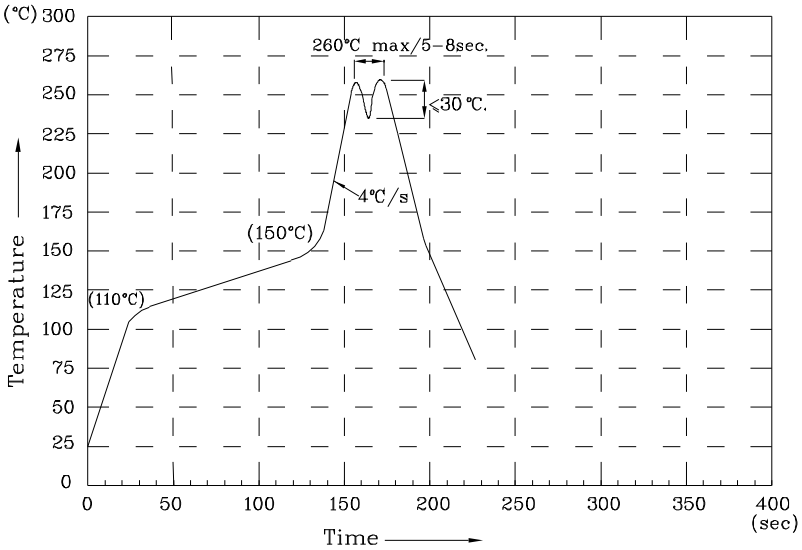
FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

XDUG20C-B

Wave Soldering Profile For Lead-free Through-hole LED.



NOTES:

1. Recommend the wave temperature 245℃~260℃. The maximum soldering temperature should be less than 260℃.
2. Do not apply stress on epoxy resins when temperature is over 85 degree℃.
3. The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
4. No more than once.

Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or wavelength), the typical accuracy of the sorting process is as follows:

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

Note: Accuracy may depend on the sorting parameters.