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SunLED
XMVG50C

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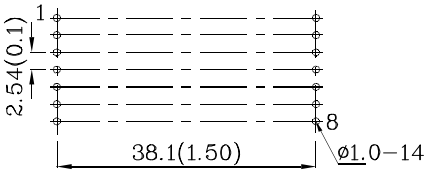
Part Number: XMVG50C

50mm (2.0 ") 5x7 DOT MATRIX DISPLAY

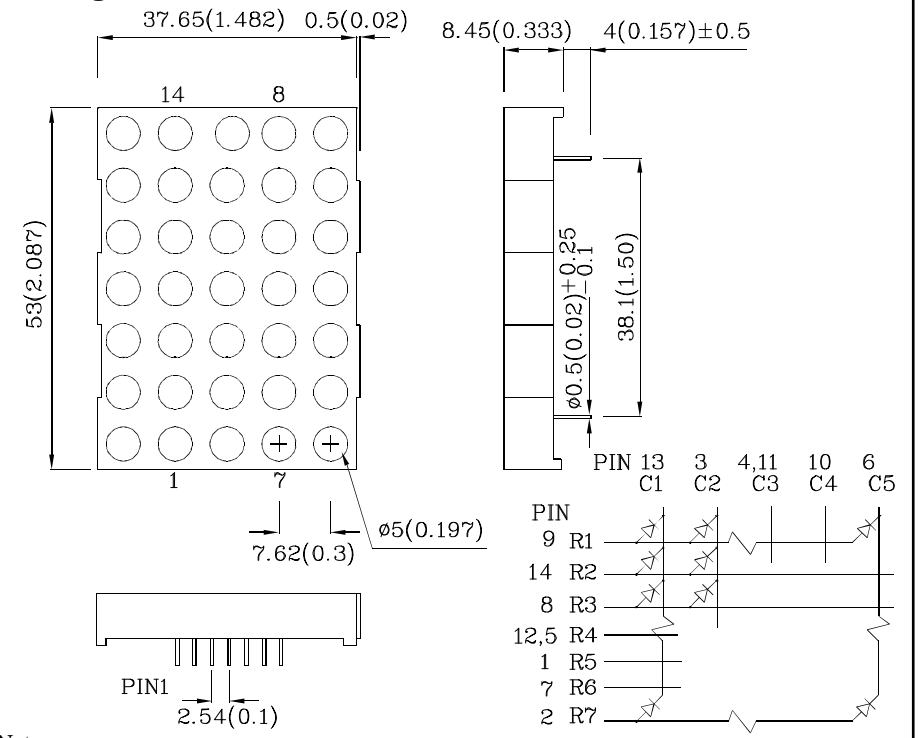
Features

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

RECOMMENDED PCB LAYOUT



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)		**VG (AlGaInP)**	**Unit**
Reverse Voltage	V_R	5	V
Forward Current	I_F	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i_{FS}	150	mA
Power Dissipation	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.) (I_F=10mA)	V_F	2	V
Forward Voltage (Max.) (I_F=10mA)	V_F	2.5	V
Reverse Current (Max.) (V_R=5V)	I_R	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)	△λ	20	nm
Capacitance (Typ.) (V_F=0V, f=1MHz)	C	15	pF

Part Number	Emitting Color	Emitting Material	Luminous Intensity CIE127-2007* (I_F=10mA) ucd		Wavelength CIE127-2007* nm λP	Description
			min.	typ.		
XMVG50C	Green	AlGaInP	21000 9000*	51990 19990*	574*	Column Cathode

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

Mar 04,2014 XDSB7736 V1-X Layout: Maggie L.

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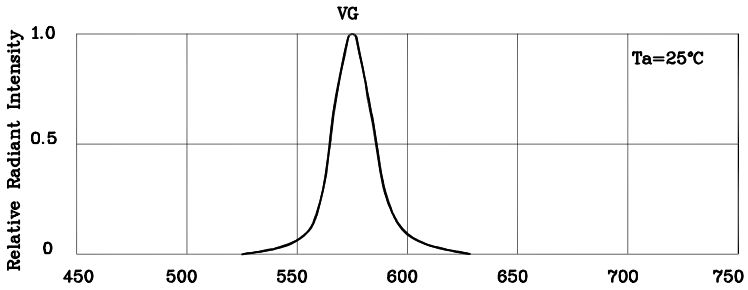
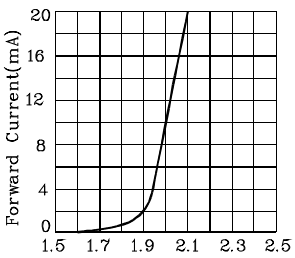
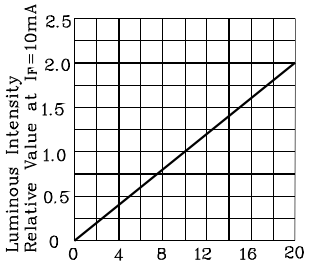


RELATIVE INTENSITY Vs. CIE WAVELENGTH

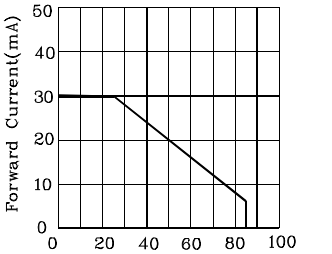
❖ VG



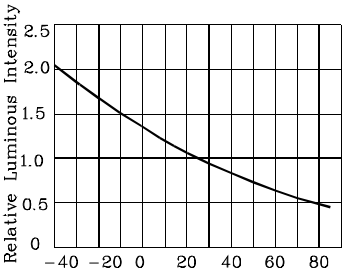
FORWARD CURRENT Vs
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT

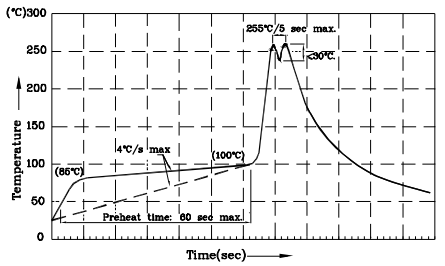


FORWARD CURRENT
DERATING CURVE



LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

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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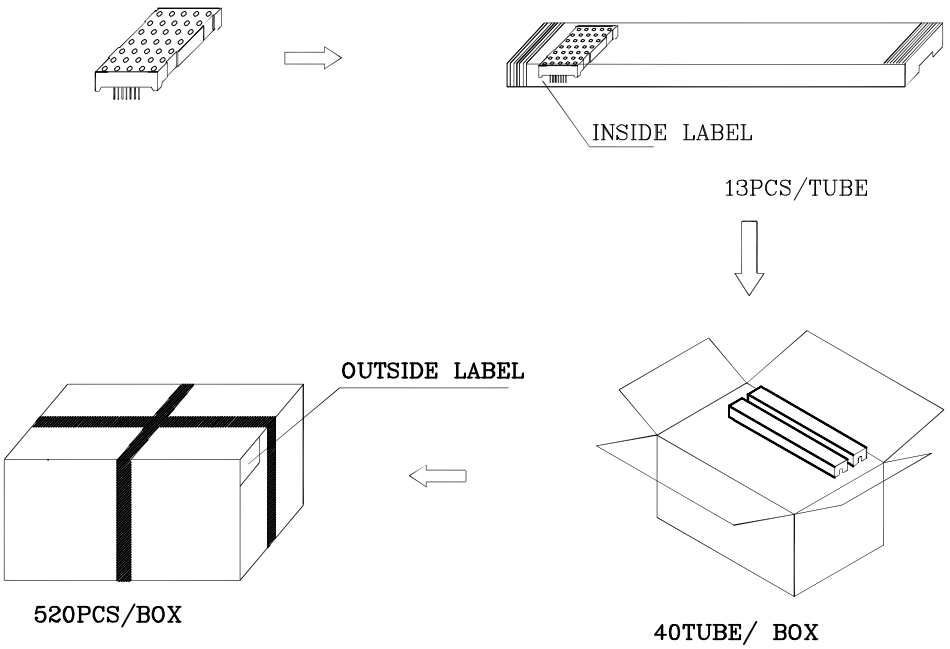
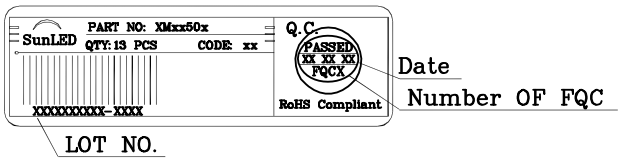
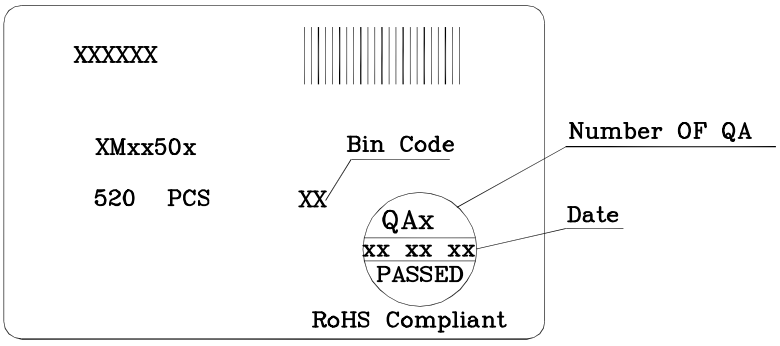
PACKING & LABEL SPECIFICATIONS



Inside Label On IC-tube



Outside Label On Box



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2. Contents within this document are subject to improvement and enhancement changes without notice.
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