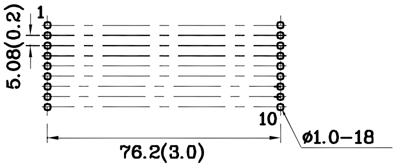
Part Number: XMURG100C

101.6mm (4.0 ") 5x7 DOT MATRIX DISPLAY

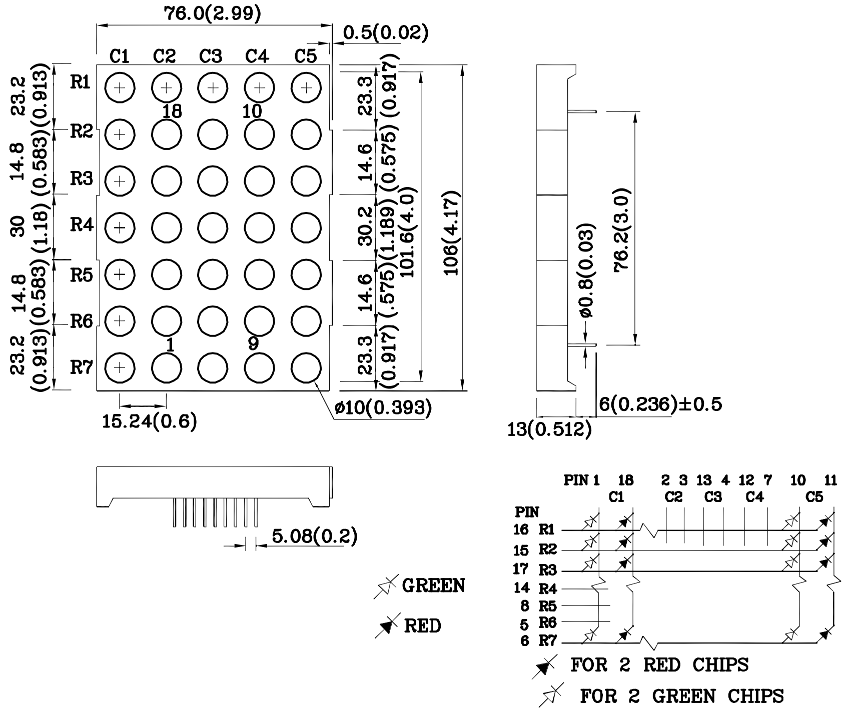
Features

- 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

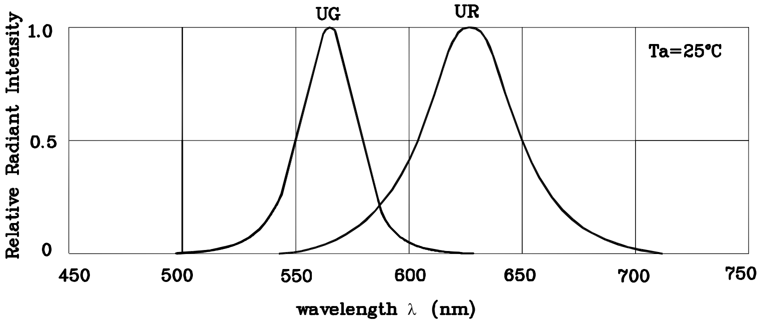


Notes:
1. All dimensions are in millimeters (inches), Tolerance is ±0.25(0.01")unless otherwise noted.
2. Specifications are subject to change without notice.

Absolute Maximum Ratings (T_A=25°C)		UR (GaAsP/ GaP)	UG (GaP)	Unit
Reverse Voltage Per Segment or (Dp and Comma)	V_R	5	5	V
Forward Current Per Segment or (Dp and Comma)	I_F	30	25	mA
Forward Current (Peak) Per Segment or (Dp and Comma) 1/10Duty Cycle 0.1ms Pulse Width	i_{FS}	160	140	mA
Power Dissipation Per Segment or (Dp and Comma)	P_D	150	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			

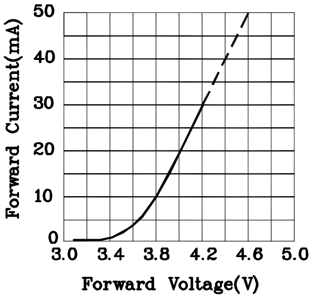
Operating Characteristics (T_A=25°C)		UR (GaAsP/GaP)	UG (GaP)	Unit
Forward Voltage (Typ.) Per Segment or (Dp and Comma) (IF=10mA)	V_F	3.8	4	V
Forward Voltage (Max.) Per Segment or (Dp and Comma) (IF=10mA)	V_F	5	5	V
Reverse Current (Max.) (V_R=5V)	I_R	10	10	uA
Wavelength of Peak Emission (Typ.) (I_F=10mA)	λP	627	565	nm
Wavelength of Dominant Emission (Typ.) (I_F=10mA)	λD	625	568	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I_F=10mA)	△λ	45	30	nm
Capacitance (Typ.) (V_F=0V, f=1MHz)	C	15	15	pF

Part Number	Emitting Color	Emitting Material	Luminous Intensity (IF=10mA) ucd		Wavelength nm λP	Description
			min.	typ.		
XMURG100C	Red	GaAsP/GaP	14000	25990	627	Column Cathode
	Green	GaP	21000	41990	565	

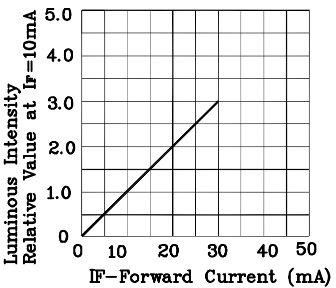


RELATIVE INTENSITY Vs. WAVELENGTH

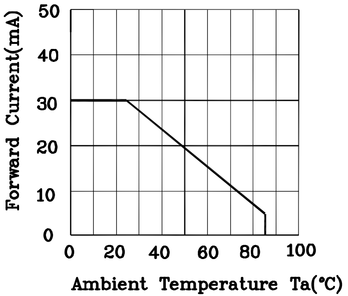
❖ UR



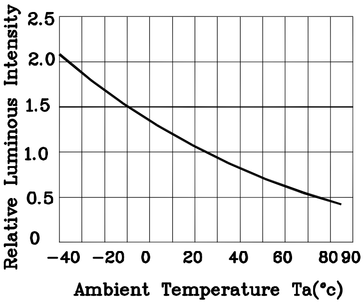
FORWARD CURRENT Vs FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT

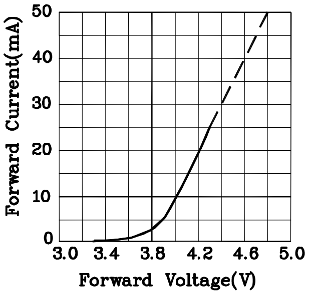


FORWARD CURRENT DERATING CURVE

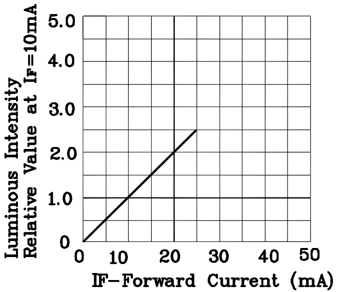


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

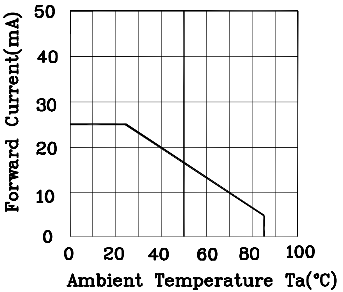
❖ UG



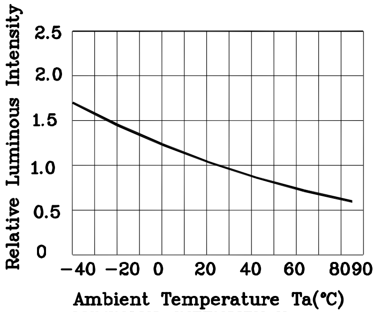
FORWARD CURRENT Vs FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT

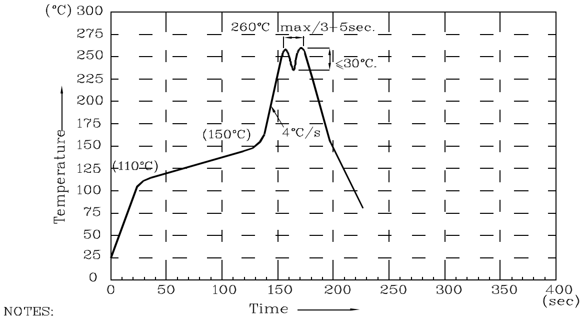


FORWARD CURRENT DERATING CURVE



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:

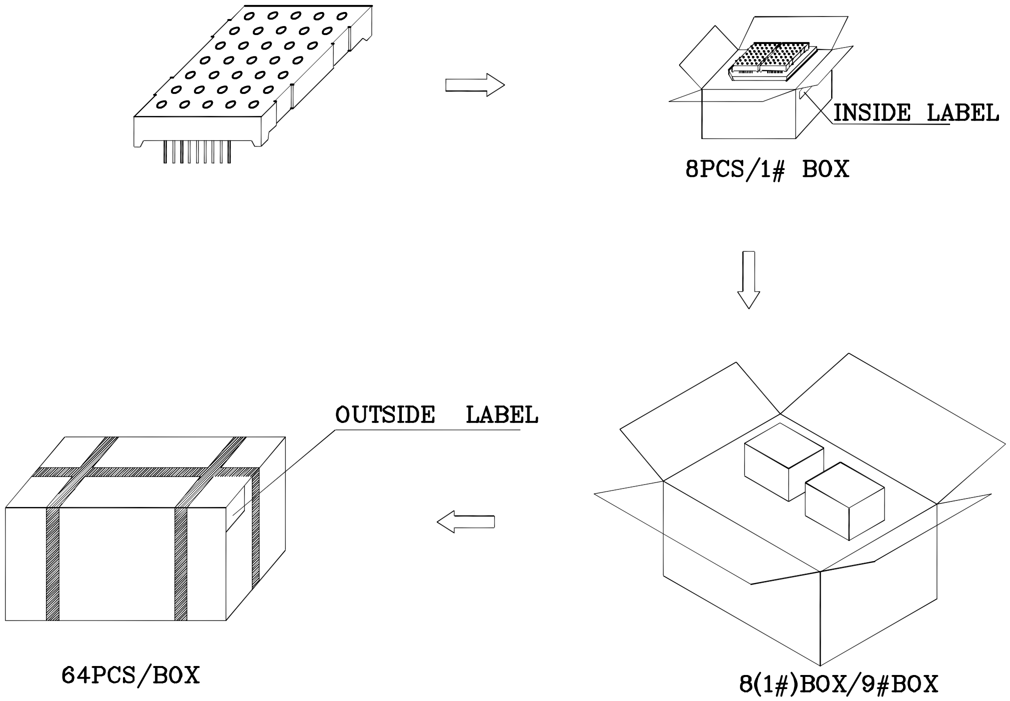
If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux, or wavelength),

the typical accuracy of the sorting process is as follows:

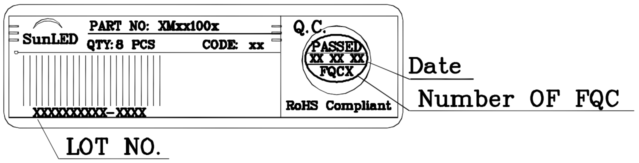
1. Wavelength: +/-1nm
2. Luminous Intensity / Luminous Flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

PACKING & LABEL SPECIFICATIONS



Inside Label on 8(1#)Box



Outside Label on Box