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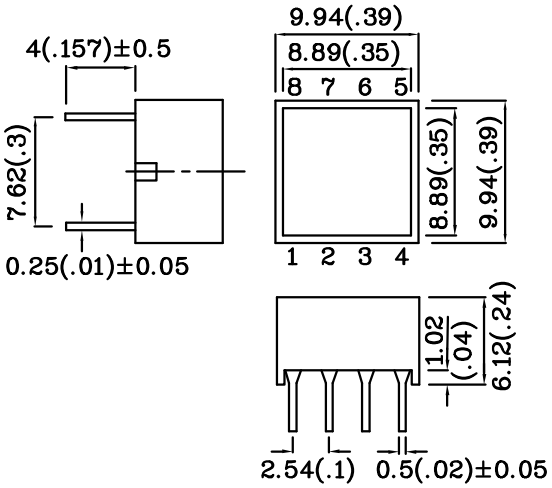
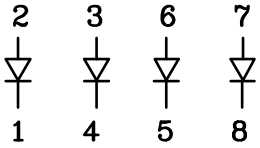
Part Number: **XEMG2855D**

8.89mmx8.89mm LED LIGHT BAR

Features

- UNIFORM LIGHT EMITTING AREA.
- LOW CURRENT OPERATION.
- EASILY MOUNTED ON P.C. BOARDS.
- FLUSH MOUNTABLE.
- EXCELLENT ON/OFF CONTRAST.
- CAN BE USED WITH PANELS AND LEGEND MOUNTS.
- RoHS COMPLIANT.





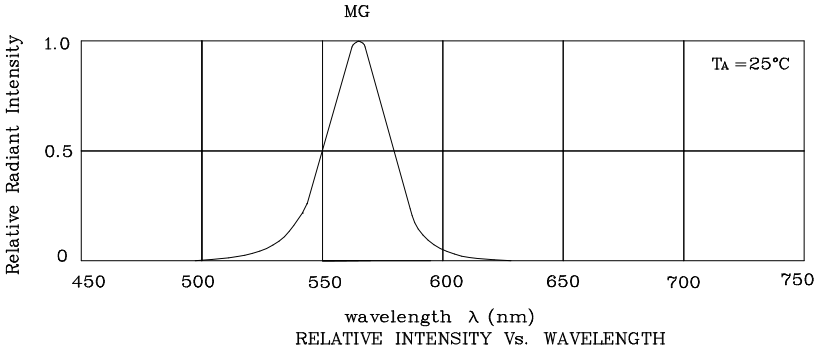
Notes:

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

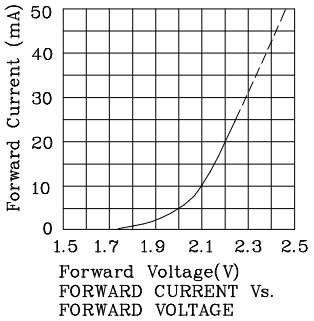
Absolute Maximum Ratings (T_A=25°C)		**MG (GaP)**	**Unit**
Reverse Voltage	V_R	5	V
Forward Current	I_F	25	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i_{FS}	140	mA
Power Dissipation	P_T	105	mW
Operating Temperature	T_A	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	
Lead Solder Temperature [2mm Below Package Base]	260°C For 5 Seconds		

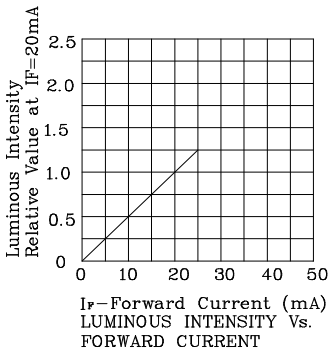
Operating Characteristics (T_A=25°C)		**MG (GaP)**	**Unit**
Forward Voltage (Typ.) (I_F=20mA)	V_F	2.2	V
Forward Voltage (Max.) (I_F=20mA)	V_F	2.5	V
Reverse Current (V_R=5V)	I_R	10	uA
Wavelength of Peak Emission (I_F=20mA)	λ P	565	nm
Wavelength of Dominant Emission (I_F=20mA)	λ D	568	nm
Spectral Line Full Width At Half-Maximum (I_F=20mA)	Δλ	30	nm
Capacitance (V_F=0V, f=1MHz)	C	15	pF

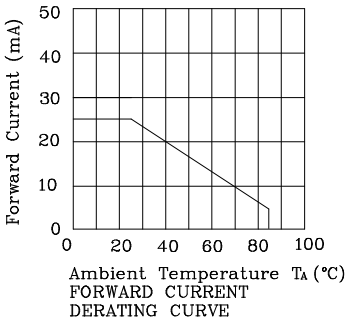
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=20mA) mcd		Wavelength nm λ P
				min.	typ.	
XEMG2855D	Green	GaP	Green Diffused	18	79	565

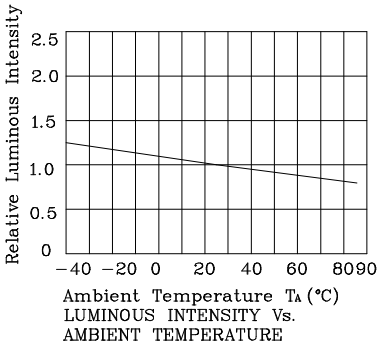

MG
Relative Radiant Intensity
1.0
0.5
0
450
500
550
600
650
700
750
TA =25°C
wavelength λ (nm)
RELATIVE INTENSITY Vs. WAVELENGTH

❖ MG

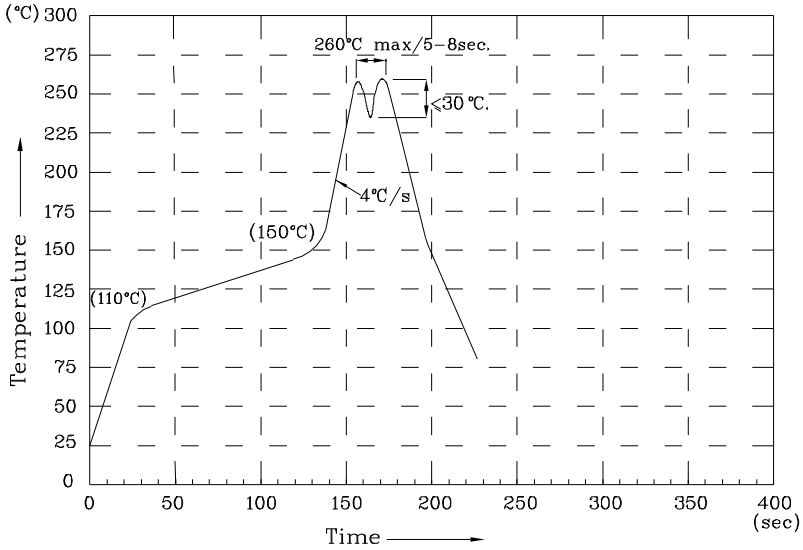

Forward Current (mA)
50
40
30
20
10
0
1.5 1.7 1.9 2.1 2.3 2.5
Forward Voltage(V)
FORWARD CURRENT Vs.
FORWARD VOLTAGE


Luminous Intensity
Relative Value at IF=20mA
2.5
2.0
1.5
1.0
0.5
0
0 10 20 30 40 50
IF−Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT


Forward Current (mA)
50
40
30
20
10
0
0 20 40 60 80 100
Ambient Temperature TA (°C)
FORWARD CURRENT
DERATING CURVE


Relative Luminous Intensity
2.5
2.0
1.5
1.0
0.5
0
−40 −20 0 20 40 60 8090
Ambient Temperature TA (°C)
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

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.