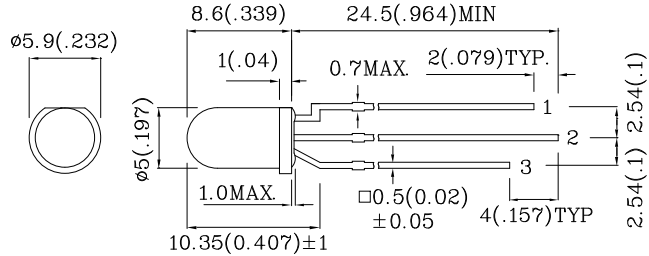


PRELIMINARY SPEC

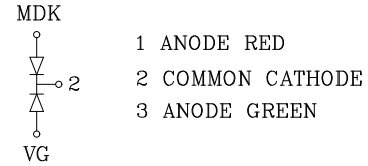
**Features**

- UNIFORM LIGHT OUTPUT.
- LOW POWER CONSUMPTION.
- 3 LEADS WITH ONE COMMON LEAD.
- I.C. COMPATIBLE.
- LONG LIFE - SOLID STATE RELIABILITY.
- RoHS COMPLIANT.



Notes:

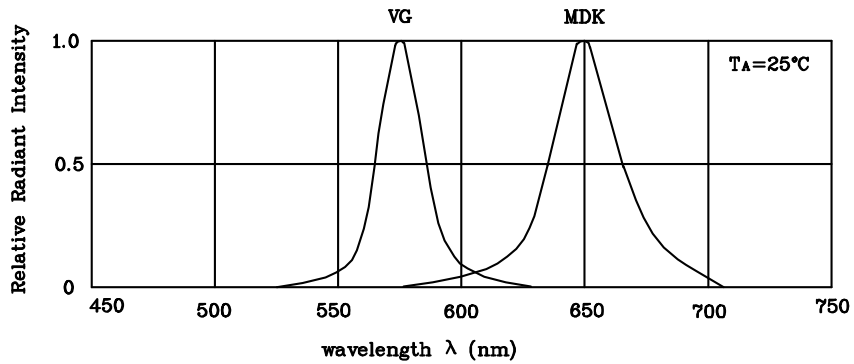
1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25(0.01)$ " unless otherwise noted.
3. Specifications are subject to change without notice.



Absolute Maximum Ratings (TA=25°C)		MDK (InGaAlP)	VG (InGaAlP)	Unit
Reverse Voltage	VR	5	5	V
Forward Current	IF	30	30	mA
Forward Current (Peak) 1/10Duty Cycle 0.1ms Pulse Width	iFS	185	150	mA
Power Dissipation	PT	75	75	mW
Operating Temperature	TA	-40 ~ +85		°C
Storage Temperature	Tstg	-40 ~ +85		
Lead Solder Temperature [2mm Below Package Base]	260°C For 3 Seconds			
Lead Solder Temperature [5mm Below Package Base]	260°C For 5 Seconds			

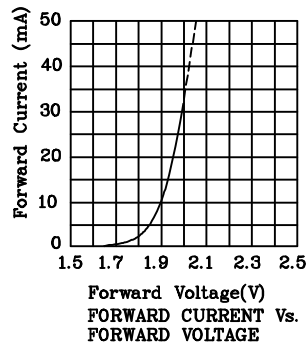
Operating Characteristics (TA=25°C)		MDK (InGaAlP)	VG (InGaAlP)	Unit
Forward Voltage (Typ.) (IF=20mA)	VF	1.95	2.1	V
Forward Voltage (Max.) (IF=20mA)	VF	2.5	2.5	V
Reverse Current (Max.) (VR=5V)	IR	10	10	uA
Wavelength Of Peak Emission (Typ.) (IF=20mA)	$\lambda P$	650	574	nm
Wavelength Of Dominant Emission (Typ.) (IF=20mA)	$\lambda D$	635	570	nm
Spectral Line Full Width At Half-Maximum (Typ.) (IF=20mA)	$\Delta\lambda$	28	20	nm
Capacitance (Typ.) (VF=0V, f=1MHz)	C	35	15	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=20mA)		Wavelength nm $\lambda P$	Viewing Angle $2\theta 1/2$
				min.	typ.		
LMDKVG59M	Red	InGaAlP	White Diffused	280	697	650	60°
	Green	InGaAlP		70	198	574	

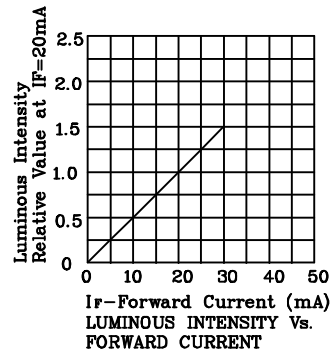


RELATIVE INTENSITY Vs. WAVELENGTH

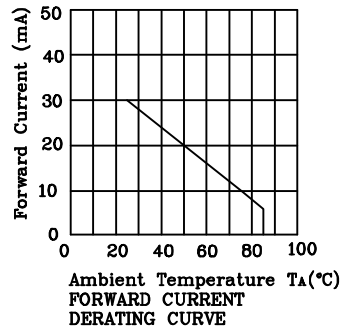
❖ MDK



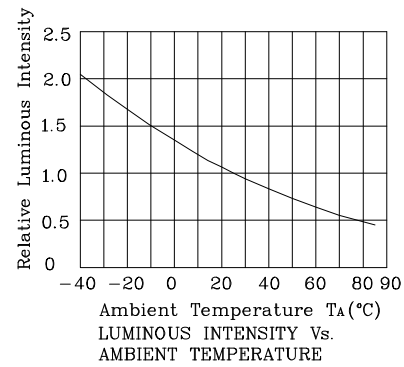
FORWARD CURRENT Vs. FORWARD VOLTAGE



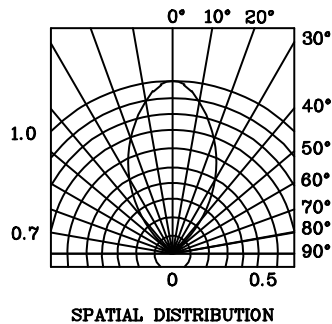
LUMINOUS INTENSITY Vs. FORWARD CURRENT



DERATING CURVE

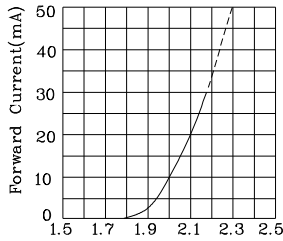


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

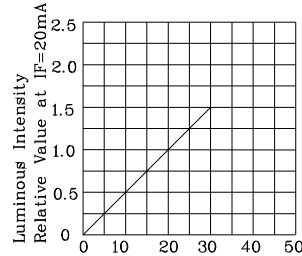


SPATIAL DISTRIBUTION

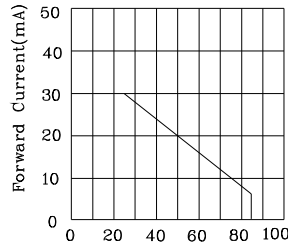
❖ VG



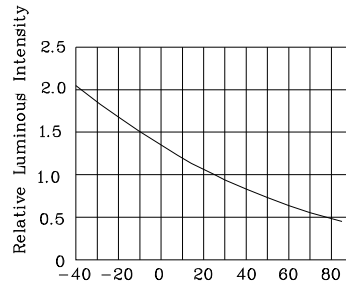
Forward Voltage(V)  
 FORWARD CURRENT Vs.  
 FORWARD VOLTAGE



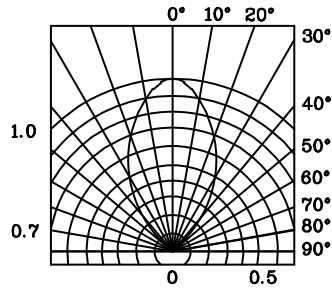
Ir-Forward Current (mA)  
 LUMINOUS INTENSITY Vs.  
 FORWARD CURRENT



Ambient Temperature Ta (°C)  
 FORWARD CURRENT  
 DERATING CURVE

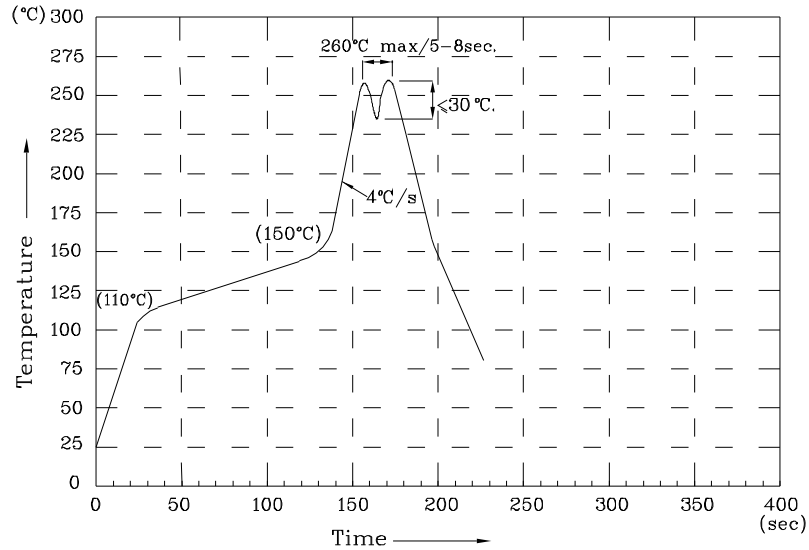


Ambient Temperature Ta (°C)  
 LUMINOUS INTENSITY Vs.  
 AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

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



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 degree°C.
3. The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
4. No more than once.

Remarks:

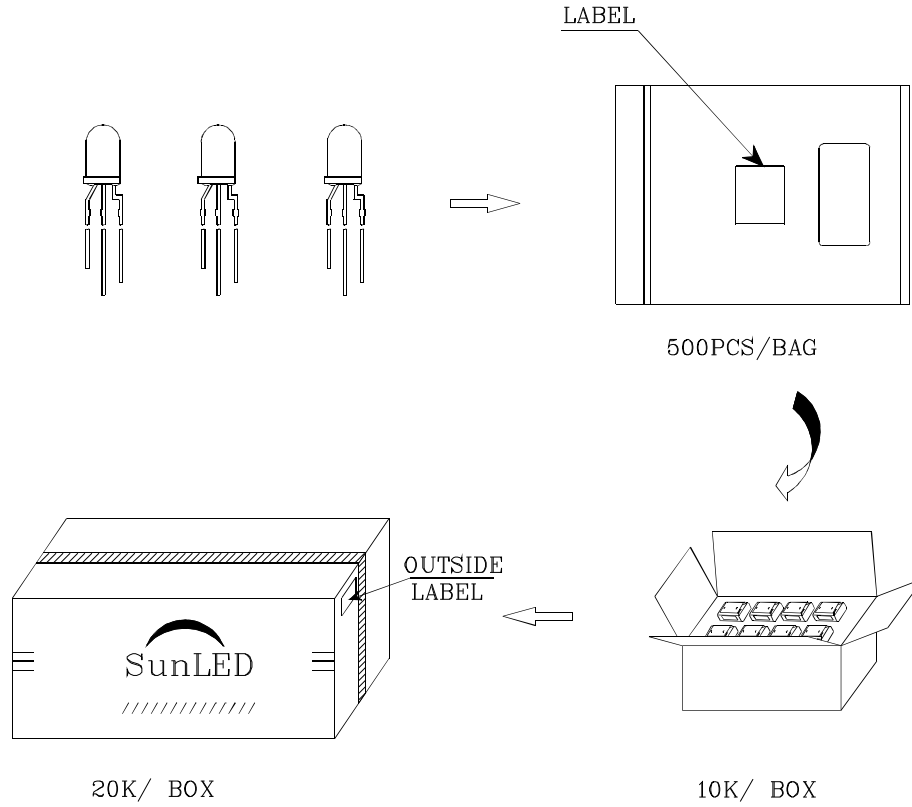
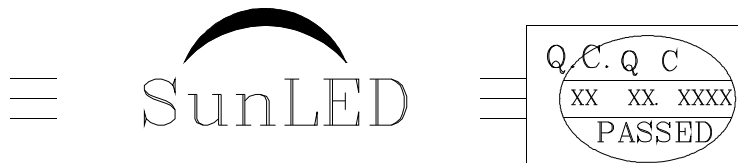
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:


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**

**LMDKVG59M**

P/NO : Lxxx59x	
QTY : 500 pcs	CODE: XXX
S/N : XX	
LOT NO:	
 XXXXXXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	