

Features

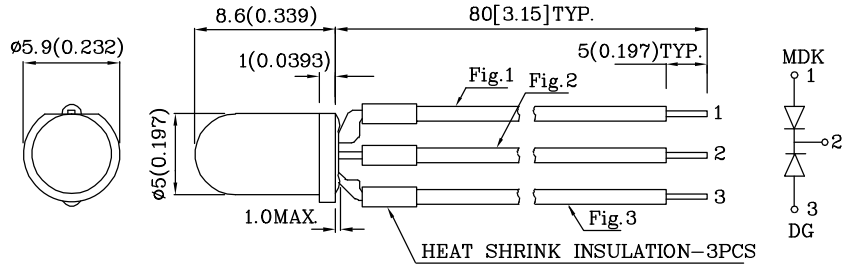
- Radial / Through hole package
- Reliable & robust
- Low power consumption
- RoHS Compliant



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Package Schematics

Fig.1 ANODE LEAD, TS, 22 AWG, UL#1332, ORANGE INSULATION, STRIP 5 mm.
Fig.2 CATHODE LEAD, TS, 22 AWG, UL#1332, BROWN INSULATION, STRIP 5 mm.
Fig.3 ANODE LEAD, TS, 22 AWG, UL#1332, GREEN INSULATION, STRIP 5 mm.



1 ANODE RED
2 COMMON CATHODE
3 ANODE GREEN

Notes:

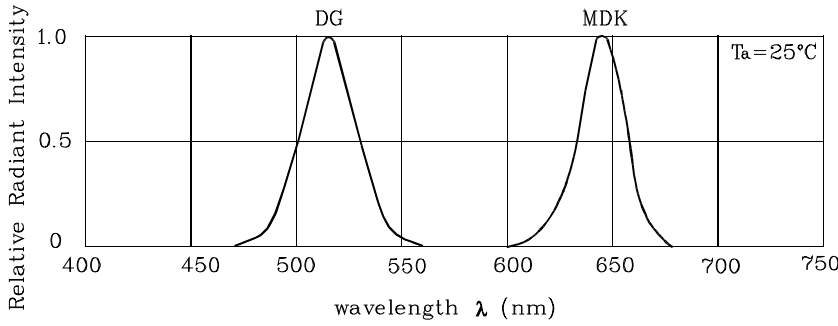
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T _A =25°C)		MDK (AlGaInP)	DG (InGaN)	Unit
Reverse Voltage	V _R	5	5	V
Forward Current	I _F	30	25	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i _{FS}	185	150	mA
Power Dissipation	P _D	75	102.5	mW
Operating Temperature	T _A	-40 ~ +85		°C
Storage Temperature	T _{stg}	-40 ~ +85		
Electrostatic Discharge Threshold (HBM)		-	450	V
Lead Solder Temperature [2mm Below Package Base]	260°C For 3 Seconds			
Lead Solder Temperature [5mm Below Package Base]	260°C For 5 Seconds			

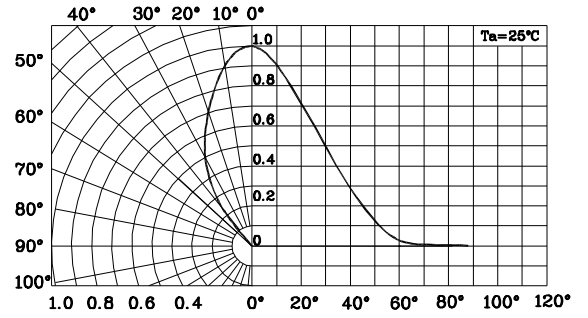
Operating Characteristics (T _A =25°C)		MDK (AlGaInP)	DG (InGaN)	Unit
Forward Voltage (Typ.) (I _F =20mA)	V _F	1.95	3.3	V
Forward Voltage (Max.) (I _F =20mA)	V _F	2.5	4.1	V
Reverse Current (Max.) (V _R =5V)	I _R	10	50	uA
Wavelength of Peak Emission CIE127-2007*(Typ.) (I _F =20mA)	λ _P	650 645*	515 515*	nm
Wavelength of Dominant Emission CIE127-2007*(Typ.) (I _F =20mA)	λ _D	630 630*	525 525*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I _F =20mA)	Δλ	28	30	nm
Capacitance (Typ.) (V _F =0V, f=1MHz)	C	35	45	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* (I _F =20mA) mcd		Wavelength CIE127-2007* λP nm	Viewing Angle 2θ 1/2
				min.	typ.		
XL59M-SKA35W	Red	AlGaInP	White Diffused	600 80*	1195 200*	650 645*	60°
	Green	InGaN		700 700*	1495 1500*	515 515*	

*Intensity intensity value and wavelength are in accordance with CIE127-2007 standards.

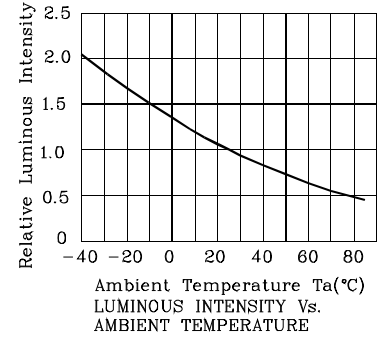
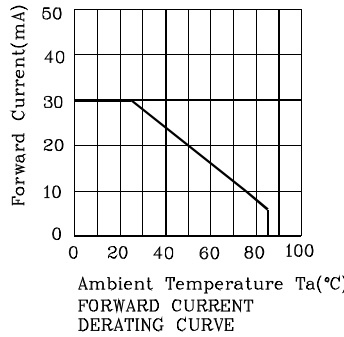
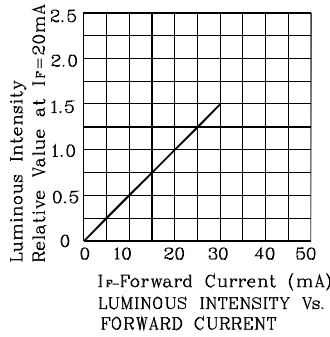
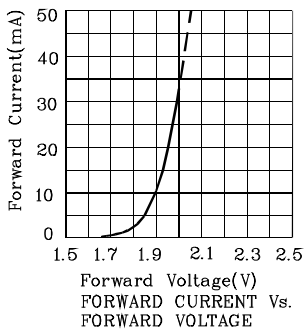


RELATIVE INTENSITY Vs. CIE WAVELENGTH

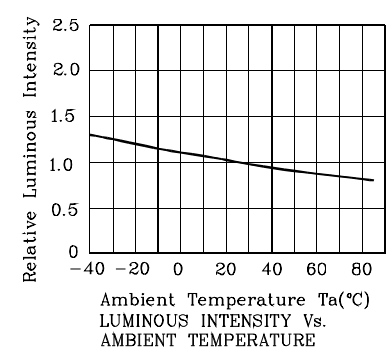
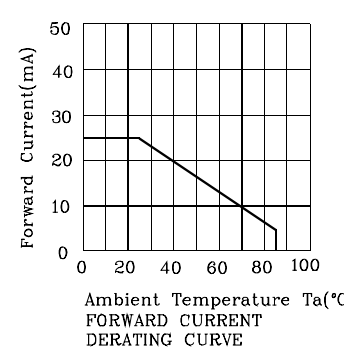
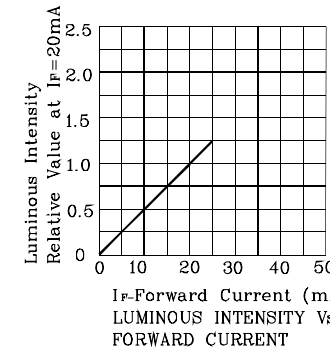
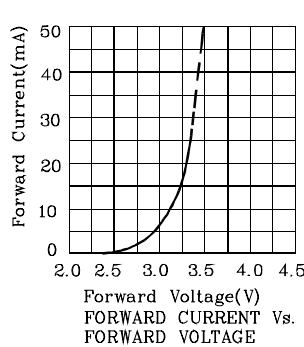


SPATIAL DISTRIBUTION

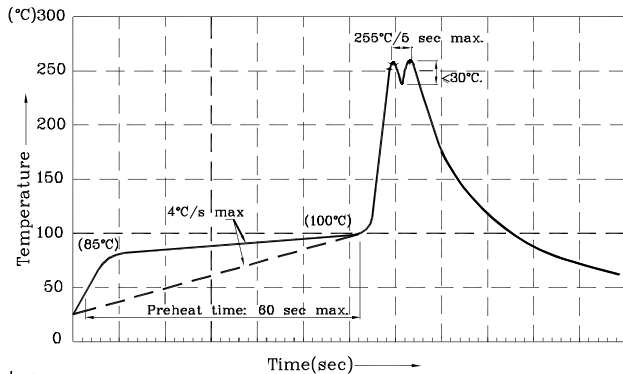
❖ MDK



❖ DG



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.

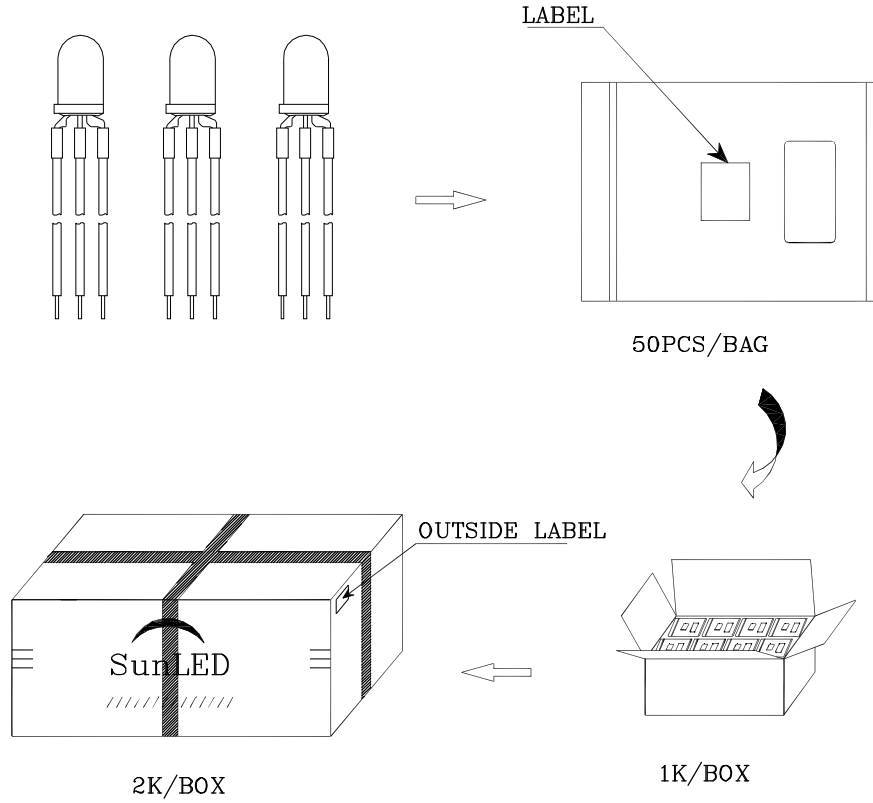

Remarks:

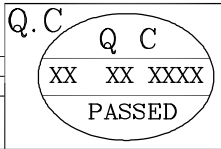

If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

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

Note: Accuracy may depend on the sorting parameters.

PACKING & LABEL SPECIFICATIONS

	
P/NO : XL59xxx	
QTY : 50 pcs	CODE: XXX
S/N : XX	
LOT NO:	
 xxxxxxxxxxxxxxxxxxxxxxxx	
RoHS Compliant	