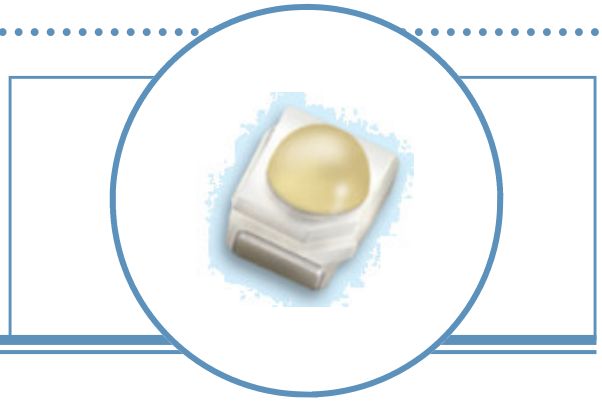
Red-Orange Top-View Surface Mount LED with Domed Lens

TT electronics
OPTEK Technology

OVSAQBLCR8

- High Intensity with Low Power Consumption
- White PLCC4 Package with Clear Domed Lens
- Wide viewing angle
- Packaged in 8mm tape on 7” diameter reel
- Compatible with automatic placement equipment
- Compatible with infrared and vapor phase reflow solder process
- Red-Orange (618nm)

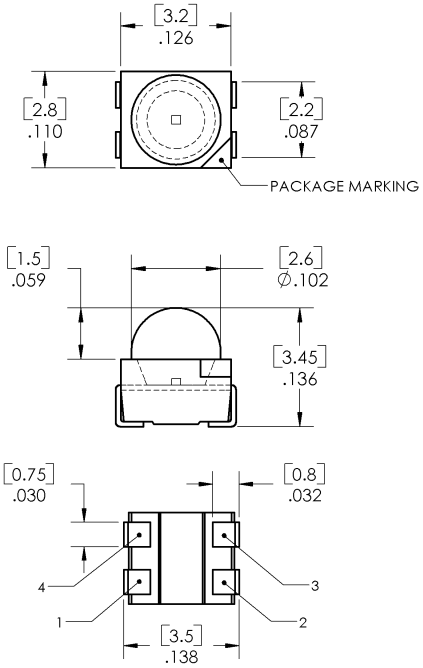


The OVSAQBLCR8 is designed for wide angle, uniform light output. Its internal reflector and colorless clear lens optimize luminous intensity and make it ideal for backlighting applications and for coupling with light guides.

Applications

- Traffic Lights
- Signal and Symbol Luminaire
- Mono-color Indicators
- Backlighting (LCD, Switches, Displays, Illuminated Advertising)
- Interior Automotive Lighting (Instrumentation Clusters)
- Safety Marker Lights (Steps, Exit Ways)

Part Number	Material	Emitted Color	Intensity/Flux Typ.	Lens Color
OVSAQBLCR8	AlInGaP	Red-Orange	2800mcd/3300mlm	Water Clear



1, 2, 3 CATHODE 4 ANODE
DIMENSIONS ARE IN INCHES AND [MILLIMETERS].

RoHS

ATTENTION
OBSERVE PRECAUTIONS
ELECTROSTATIC
SENSITIVE DEVICES

Data is subject to change without prior notice.

Red-Orange Top-View SMD LED with Domed Lens
OVSAQBLCR8

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Absolute Maximum Ratings
T_A = 25° C unless otherwise noted

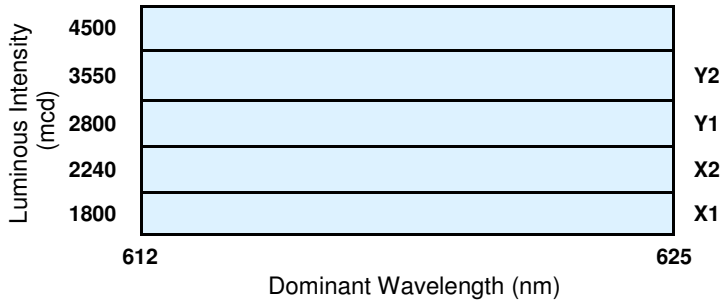
Storage Temperature Range	-40 ~ +100℃
Operating Temperature Range	-40 ~ +100℃
Junction Temperature	110℃
Junction/Ambient[1]	300℃/W
Junction/Solder Point	150℃/W
Reverse Voltage	5 V
Continuous Forward Current	70 mA
Peak Forward Current (10% Duty Cycle, PW ≤ 100 µsec)	200 mA
Power Dissipation	225 mW

Note:
1. Rth test condition: Mounted on PC board FR4 (pad size≥16mm^2)

Electrical Characteristics
T_A = 25° C unless otherwise noted

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS
I_V	Luminous Intensity	1800	2800	----	mcd	I_F =50mA
Φ_v	Luminous Flux	----	3300	----	mlm	I_F =50mA
V_F	Forward Voltage	----	2.5	3.2	V	I_F =50mA
I_R	Reverse Current	----	----	10	µA	V_R = 5V
λ_D	Dominant Wavelength	612	618	625	nm	I_F =50mA
2 Θ½	50% Power Angle	----	60	----	deg	I_F =50mA

Standard Bins (I_F = 50mA)
Lamps are sorted to luminous intensity (I_V) and dominant wavelength (λ_D) bins shown.
Orders for OVSAQBLCR8 may be filled with any or all bins contained as below.

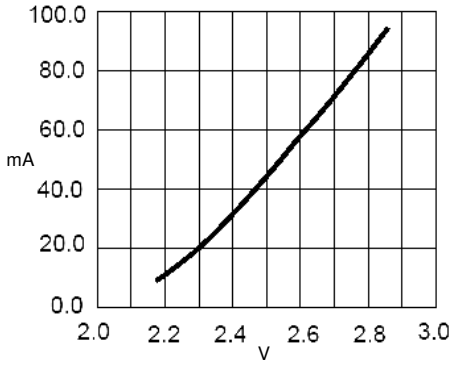


Luminous intensity is at X1 bin or above.

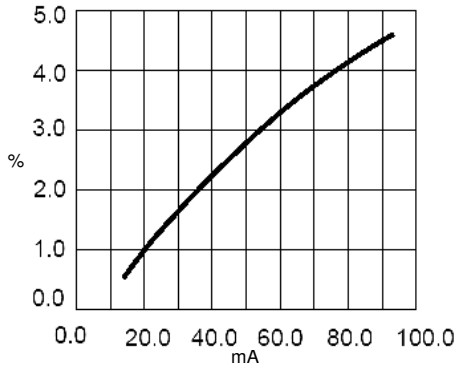
Important Notes:
1. All ranks will be included per delivery, rank ratio will be based on the chip distribution.
2. To designate luminous intensity ranks, please contact OPTEK.

OPTEK Technology Inc. — 1645 Wallace Drive, Carrollton, Texas 75006
Phone: (972) 323-2200 or (800) 341-4747 FAX: (972) 323-2396 visibleLED@optekinc.com www.optekinc.com

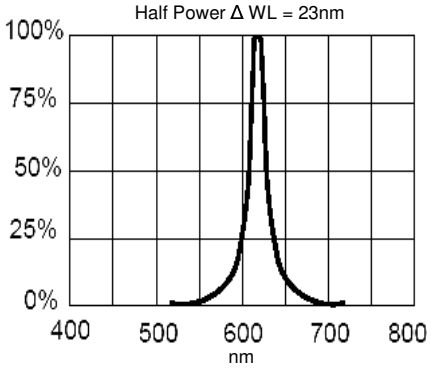
Typical Electro-Optical Characteristics Curves



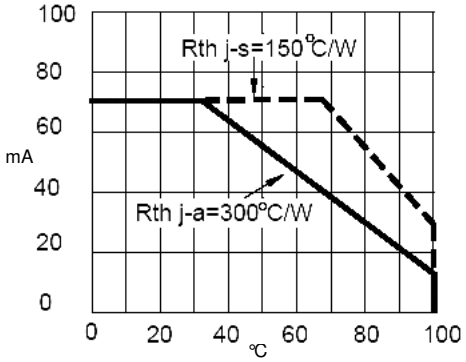
Forward Current vs. Forward Voltage



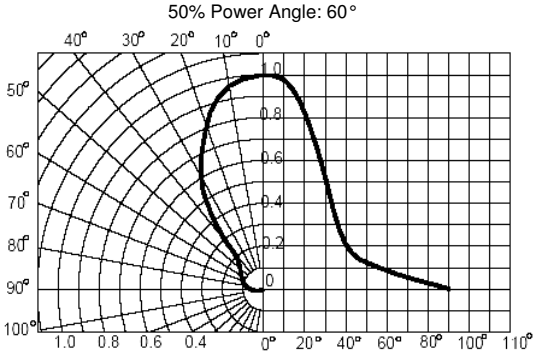
Relative Luminous Intensity vs. Forward Current



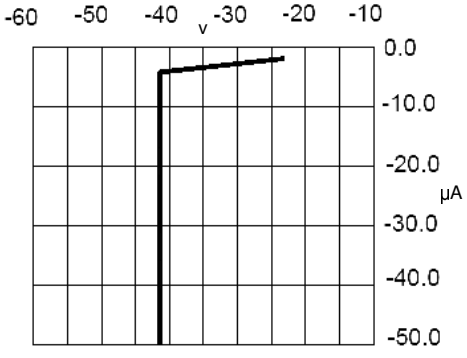
Relative Luminous Intensity vs. Wavelength



Maximum Forward DC Current vs. Ambient Temperature

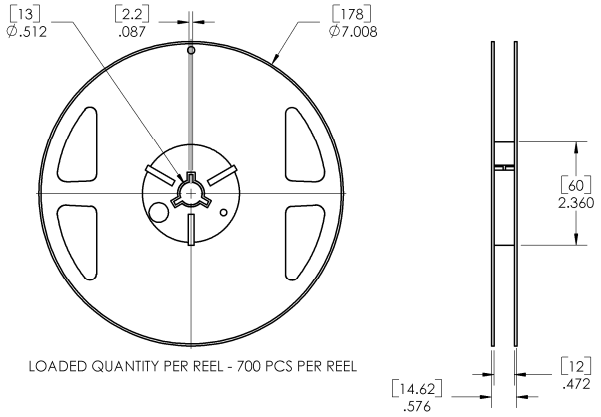


Spatial Distribution

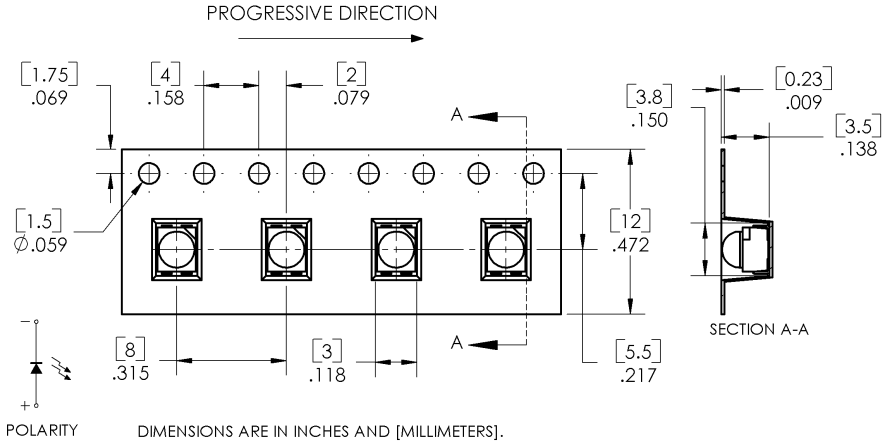


Reverse Current vs. Reverse Voltage

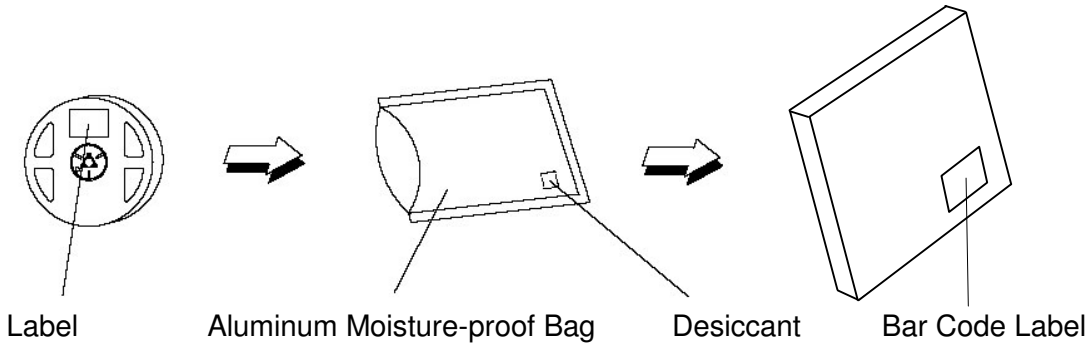
Reel Dimensions (7 Inch)



Carrier Tape Dimensions: Loaded Quantity 700 PCS per Reel



Moisture Resistant Packaging



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Issue	Change Description	Approval	Date
1.0	Initial Release	J. Haynie	July 29, 2005