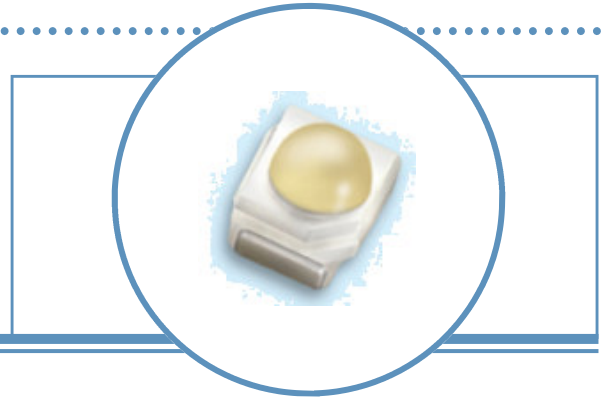


Red-Orange Top-View Surface Mount LED with Domed Lens

OVSAQBLCR8

- High intensity with low power consumption
- White PLCC4 package with clear domed lens
- Wide viewing angle
- Packaged in 8 mm tape on 7" diameter reel
- Compatible with automatic placement equipment
- Compatible with infrared and vapor phase reflow solder process
- Red-orange (618 nm)

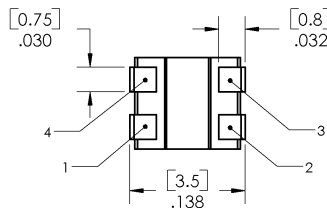
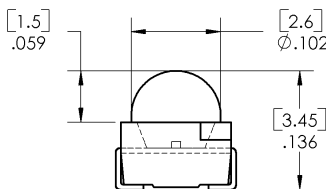
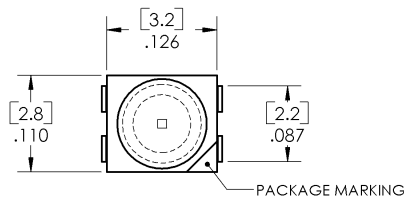


The **OVSAQBLCR8** is designed for wide angle, uniform light output. Its internal reflector and colorless clear lens optimize luminous intensity and make it ideal for backlighting applications and for coupling with light guides.

Applications

- Traffic lights
- Signal and symbol luminaire
- Mono-color indicators
- Backlighting (LCD, switches, displays and illuminated advertising)
- Interior automotive lighting (instrumentation clusters)
- Safety marker lights (steps, exit ways)

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



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



DO NOT LOOK DIRECTLY AT LED WITH UNSHIELDED EYES OR DAMAGE TO RETINA MAY OCCUR.

OPTEK reserves the right to make changes at any time in order to improve design and to supply the best product possible.

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



Absolute Maximum Ratings

$T_A = 25^\circ\text{C}$ unless otherwise noted

Storage Temperature Range	-40 ~ +100°C
Operating Temperature Range	-40 ~ +100°C
Junction Temperature	110°C
Junction/Ambient ¹	300°C/W
Junction/Solder Point	150°C/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 R_{th} test condition: Mounted on PC board FR4 (pad size ≥ 16 mm²)

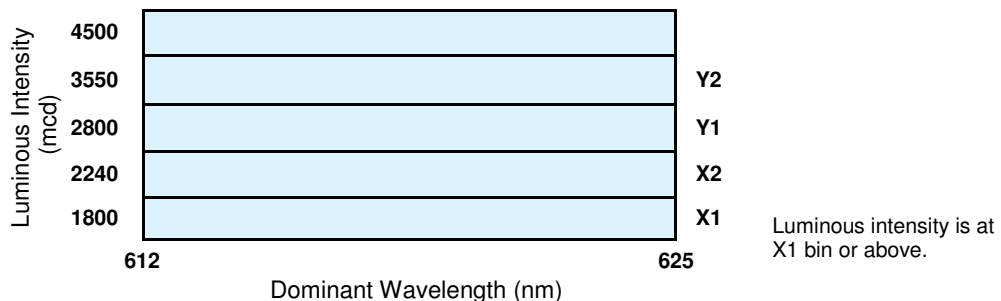
Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS
I_V	Luminous Intensity	1800	2800	----	mcd	$I_F = 50\text{ mA}$
Φ_V	Luminous Flux	----	3300	----	mlm	$I_F = 50\text{ mA}$
V_F	Forward Voltage	----	2.5	3.2	V	$I_F = 50\text{ mA}$
I_R	Reverse Current	----	----	10	μA	$V_R = 5\text{ V}$
λ_D	Dominant Wavelength	612	618	625	nm	$I_F = 50\text{ mA}$
$2\Theta_{1/2}$	50% Power Angle	----	60	----	deg	$I_F = 50\text{ mA}$

Standard Bins ($I_F = 50\text{ mA}$)

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.



Important Notes:

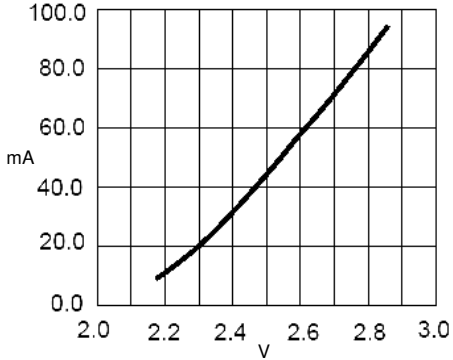
- All ranks will be included per delivery, rank ratio will be based on the chip distribution.
- To designate luminous intensity ranks, please contact OPTEK.

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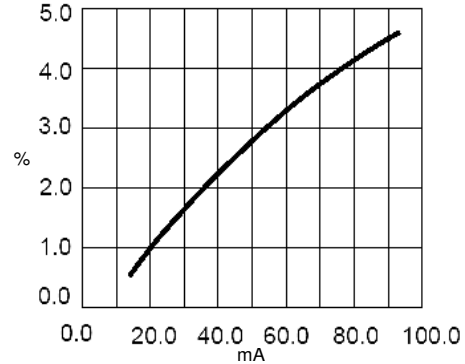
Red-Orange Top-View SMD LED with Domed Lens OVSAQBLCR8



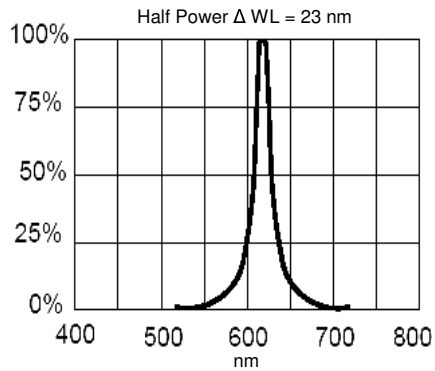
Typical Electro-Optical Characteristics Curves



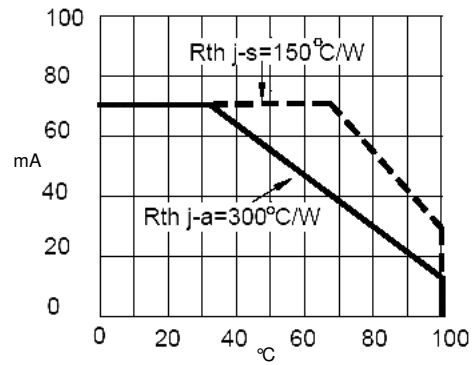
Forward Current vs Forward Voltage



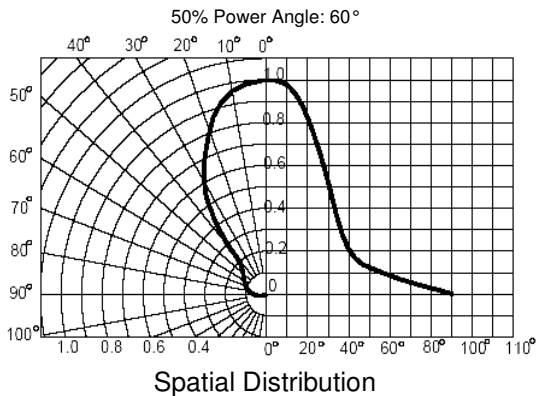
Relative Luminous Intensity vs Forward Current



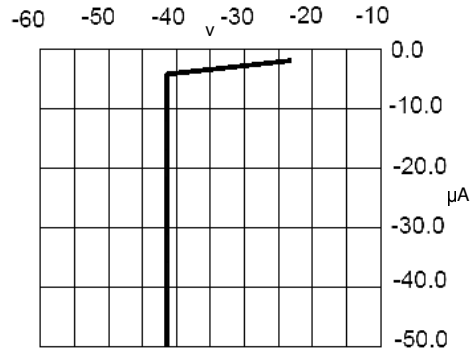
Relative Luminous Intensity vs Wavelength



Maximum Forward DC Current vs Ambient Temperature



Spatial Distribution



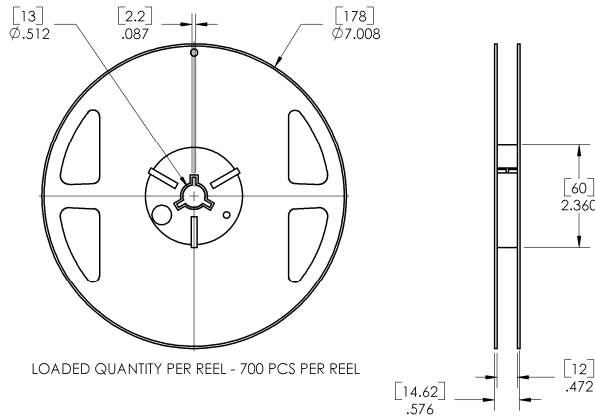
Reverse Current vs Reverse Voltage

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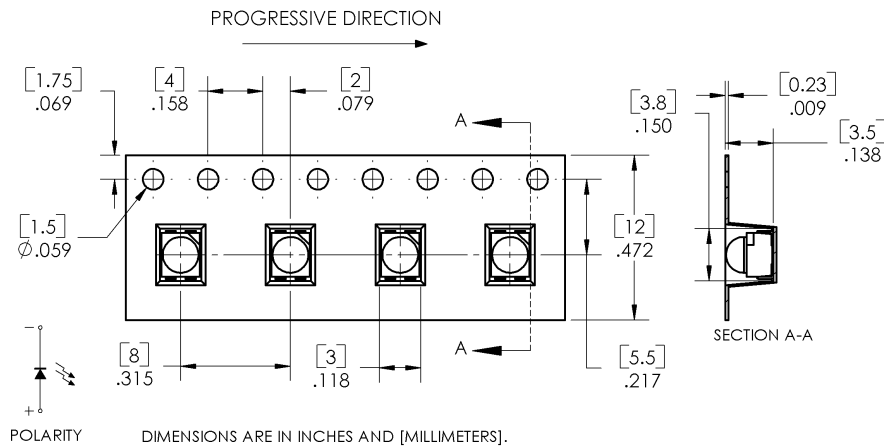
Red-Orange Top-View SMD LED with Domed Lens OVSAQBLCR8



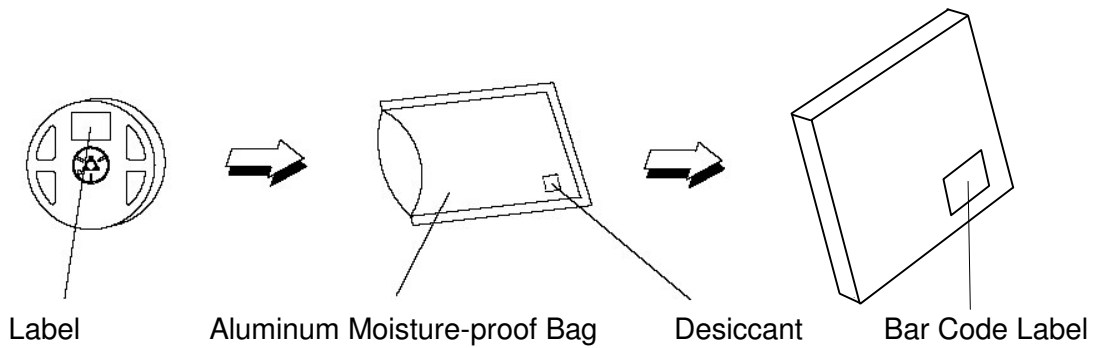
Reel Dimensions: 7-inch reel



Carrier Tape Dimensions: Loaded quantity 700 pieces per reel



Moisture Resistant Packaging



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