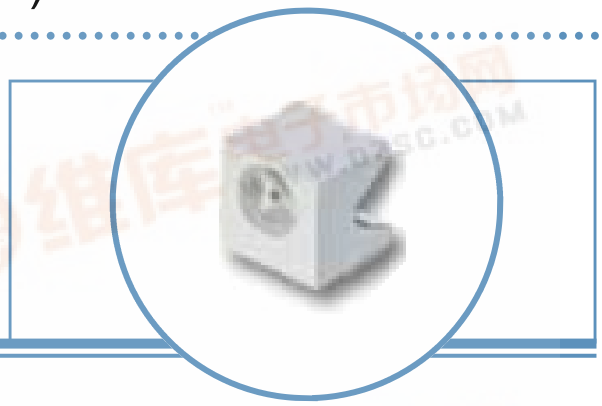
Red Side-Emitting SMD LED (4 x 4 mm, 120° Viewing Angle)

TT electronics
OPTEK Technology

OVSR9RBCR8

- Compact size allows use in space conscious devices
- Thin profile offers unlimited design flexibility
- Long life span reduces maintenance cost
- Suitable for all SMT assembly methods
- Red (624 nm)

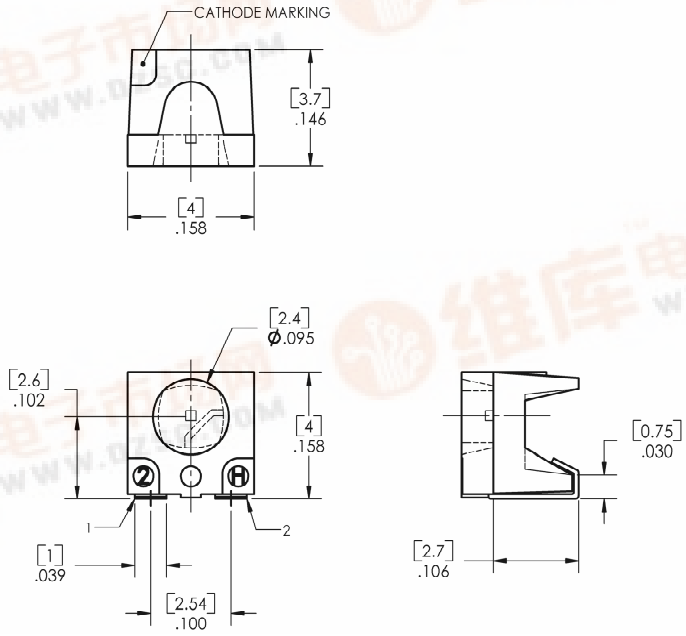


The **OVSR9RBCR8** is a is a side-looking red 4.0 mm x 4.0 mm 120° angle surface-mounted LED that can be used as a light source in many applications. Its compact size and thin profile offer maximum design flexibility, while its long life span reduces maintenance cost.

Applications

- Optical indicators
- Coupling into light guides
- Back lights (LCD switches, keys, displays, illuminated advertising, general lighting)
- Interior automotive lighting (dashboard backlighting, etc.)
- Automotive applications
- Marker lights (e.g., steps, exit ways, etc.)
- Signal and symbol luminaire

Part Number	Material	Emitted Color	Intensity Typ. mcd	Lens Color
OVSR9RBCR8	AlGaInP	Red	400	Water Clear



RoHS Moisture

ATTENTION
OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES

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

Red Side-Emitting SMD LED
OVSR9RBCR8

Absolute Maximum Ratings
T_A = 25° C unless otherwise noted

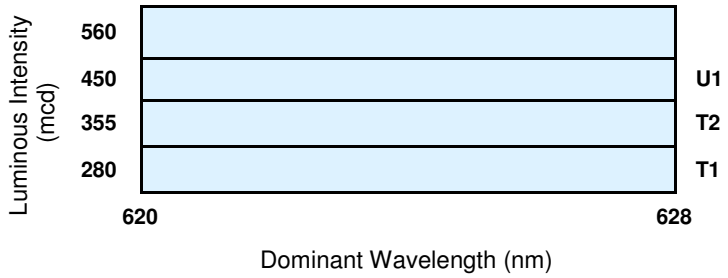
Storage Temperature Range	-40 ~ +100° C
Operating Temperature Range	-40 ~ +100° C
Junction Temperature	110° C
Junction/Ambient[1]	500° C/W
Junction/Solder Point	350° C/W
Reverse Voltage	5 V
Continuous Forward Current	50 mA
Peak Forward Current (10% Duty Cycle, PW ≤ 100 µsec)	200 mA
Power Dissipation	130 mW

Note:
1. Rth test condition: Mounted on PC board FR 4 (pad size≥16mm^2).

Electrical Characteristics
T_A = 25° C unless otherwise noted

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS
I_V	Luminous Intensity	280	400	----	mcd	I_F = 20 mA
V_F	Forward Voltage	----	2.3	2.6	V	I_F = 20 mA
I_R	Reverse Current	----	----	10	µA	V_R = 5 V
λ_D	Dominant Wavelength	620	628	635	nm	I_F = 20 mA
2 Θ½	50% Power Angle	----	120	----	deg	I_F = 20 mA

Standard Bins (I_F = 20mA)
Lamps are sorted to luminous intensity (I_V) and dominant wavelength (λ_D) bins shown.
Orders for OVSR9RBCR8 may be filled with any or all bins contained as below.



Luminous intensity is at T1 bin or above.

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.

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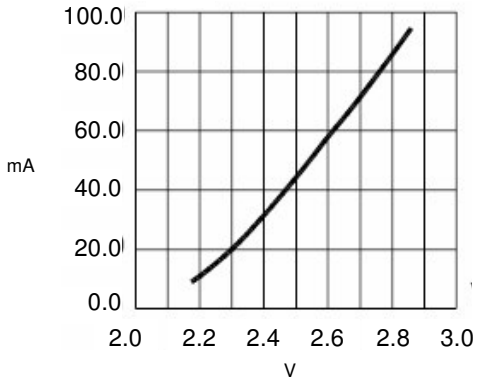
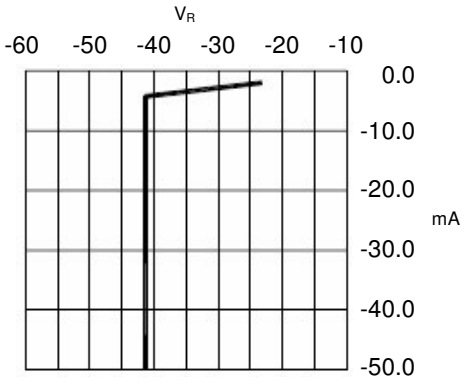
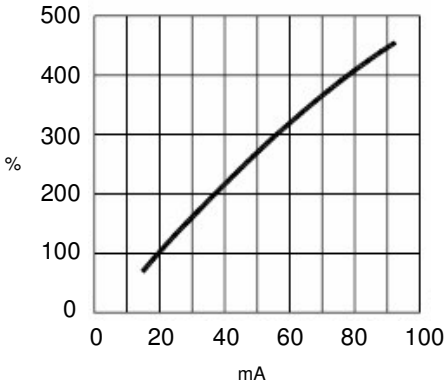
Typical Electro-Optical Characteristics Curves



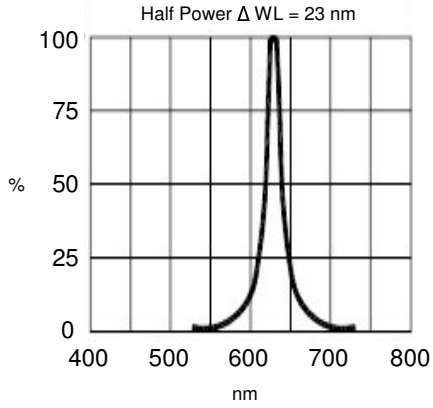
Forward Current vs Forward Voltage



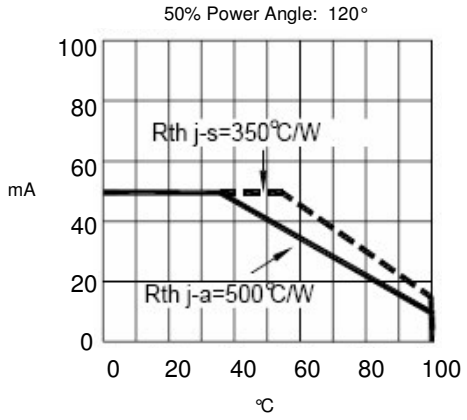
Reverse Current vs Reverse Voltage



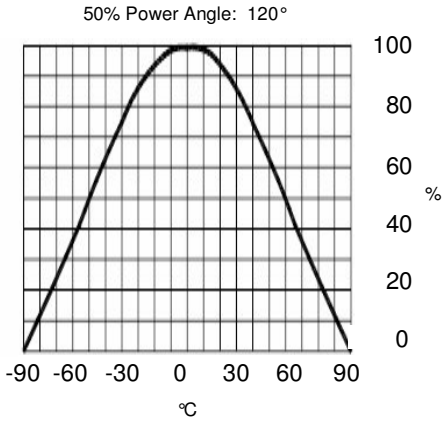
Relative Luminous Intensity vs Forward Current



Relative Luminous Intensity vs Wavelength

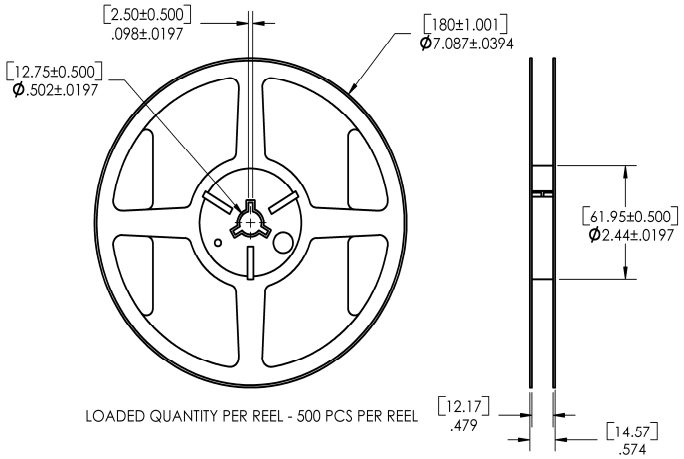


Maximum Forward Current vs Ambient Temperature

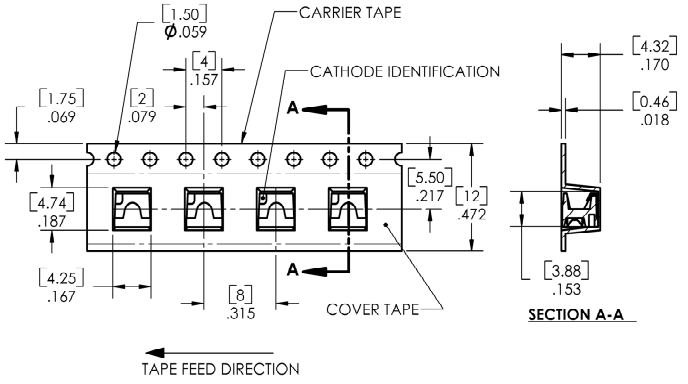


Far Field Pattern

Reel Dimensions: 7-inch reel

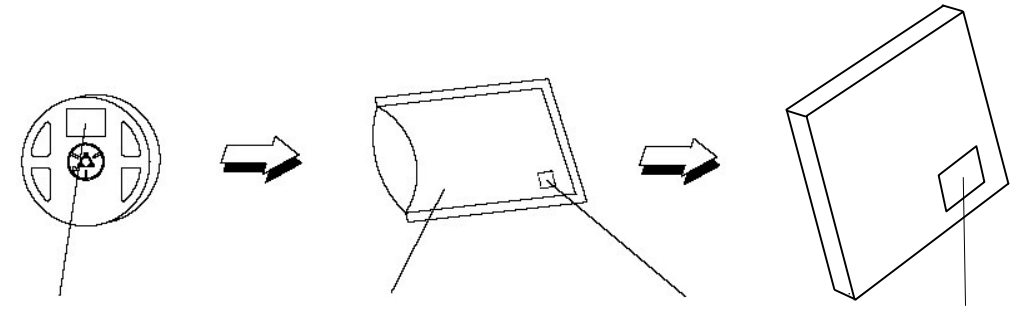


Carrier Tape Dimensions: Loaded quantity 500 pieces per reel



DIMENSIONS ARE IN INCHES AND [MILLIMETERS].
TOLERANCES ARE ±.0039 [0.1] UNLESS OTHERWISE SPECIFIED.

Moisture Resistant Packaging



Label — Aluminum Moisture-proof Bag — Desiccant — Bar Code Label

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

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