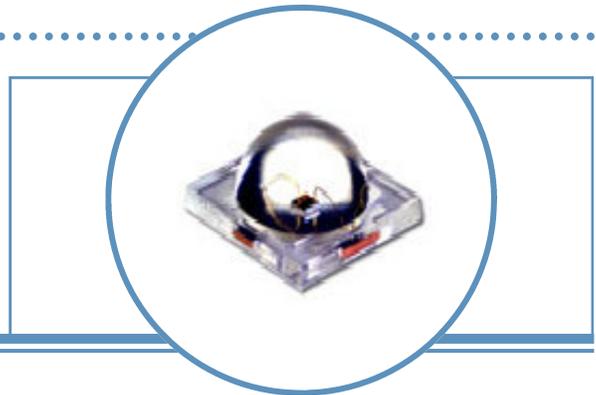


1-Watt SMD Green LED Lamp (7 mm)

OVSPGCCR8

- High luminous flux output for illumination
- Exposed pad design for excellent heat transfer
- Designed for high current operation
- Reflow soldering applicable

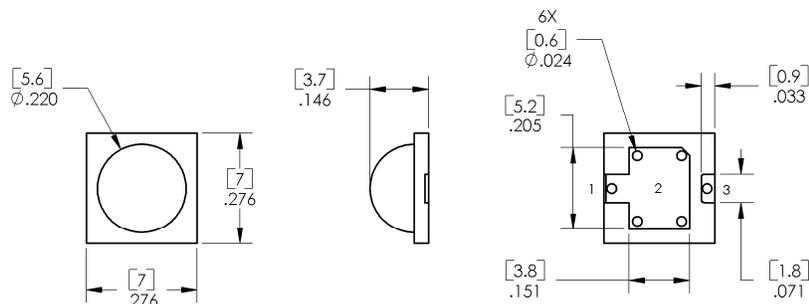


The **OVSPGCCR8** is designed to handle high current and heat and emits sufficient light for a variety of lighting and illumination applications. Small size and high power allow for compact and cost-effective lighting solutions.

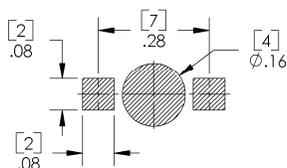
Applications

- Automotive (exterior and interior lighting)
- Backlighting LCD displays (televisions and computer monitors)
- Entertainment (studios, theaters, nightclubs, restaurants)
- Accent lighting (wall wash, landscape, spotlight)
- Bicycle and pedestrian safety lights

Part Number	Material	Emitted Color	Flux Typ. lm	Lens Color
OVSPGCCR8	InGaN	Green	40	Water Clear



SOLDERING PATTERN



1 ANODE 2 HEAT SINK 3 CATHODE

DIMENSIONS ARE IN INCHES AND [MILLIMETERS].

HEAT SINK IS TIED ELECTRICALLY AND MECHANICALLY TO ANODE.



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.

1-Watt SMD Green LED Lamp (7 mm)

OVSPGCCR8



Absolute Maximum Ratings

$T_A = 25^\circ\text{C}$ (on metal core PCB¹) unless otherwise noted

Storage Temperature Range	-40 ~ +85° C
Operating Temperature Range	-40 ~ +85° C
Reverse Voltage	5 V
Continuous Forward Current	300 mA
Peak Forward Current (10% Duty Cycle, 1KHz)	500 mA
Power Dissipation	1.3 W
Junction Temperature	+125° C
Junction-to-Ambient ³	45° C/W
Junction-to-case ²	15° C/W

Notes:

1. Metal core PCB defined as good heat transmission substrate (thickness of 2.0 mm Al-based PCB 20 x 20 mm, $\Theta_{JC} < 15^\circ\text{C/W}$ could do).
2. Where pulse width ≤ 0.1 msec, duty cycle $\leq 1/10$.

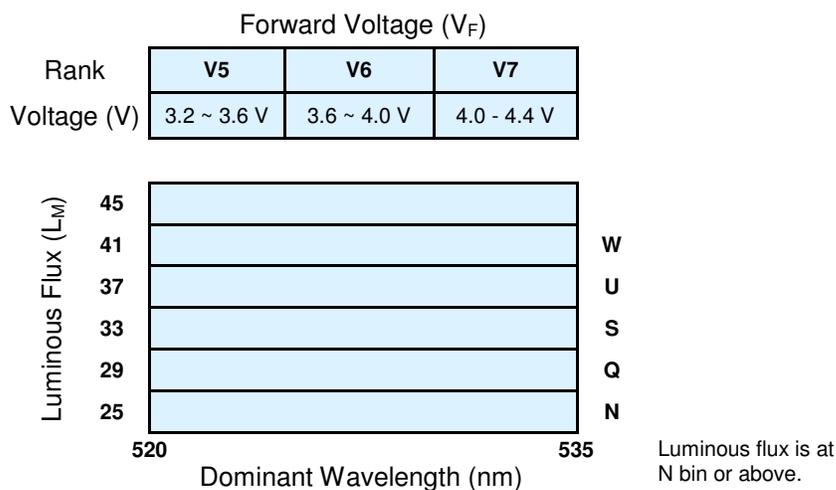
Electrical Characteristics

$T_A = 25^\circ\text{C}$ (on metal core PCB¹) unless otherwise noted

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS
lumen	Luminous Flux	25	40	----	lm	$I_F = 300\text{ mA}$
V_F	Forward Voltage	----	3.6	4.4	V	$I_F = 300\text{ mA}$
I_R	Reverse Current	----	----	10	μA	$V_R = 5\text{ V}$
λ_D	Dominant Wavelength	520	527	535	nm	$I_F = 300\text{ mA}$
$2\theta_{1/2}$	50% Power Angle	----	140	----	deg	$I_F = 300\text{ mA}$

Standard Bins ($I_F = 300\text{mA}$)

Lamps are sorted to luminous flux (Φ_V) and dominant wavelength (λ_D) and ranked as shown. Orders for OVSPGCCR8 may be filled with any or all bins contained as below.

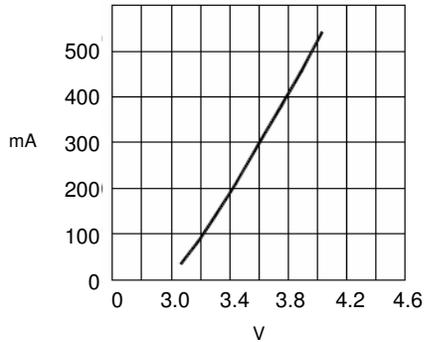


Notes:

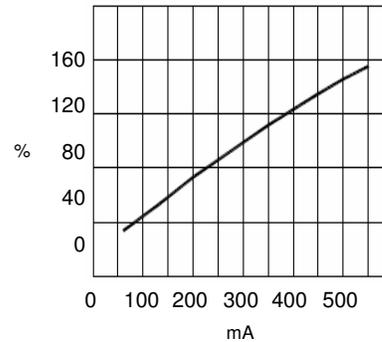
1. All ranks will be included per delivery, rank ratio will be based on the chip distribution.
2. Pb content <1000 PPM.
3. To designate luminous intensity ranks, please contact OPTEK.

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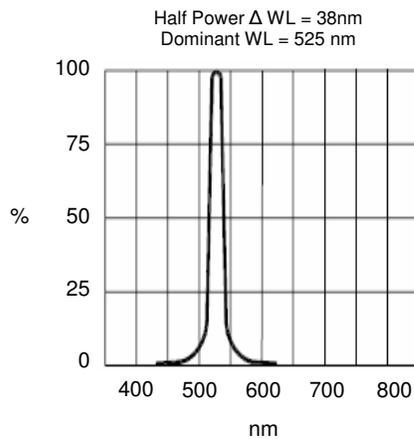
Typical Electro-Optical Characteristics Curves



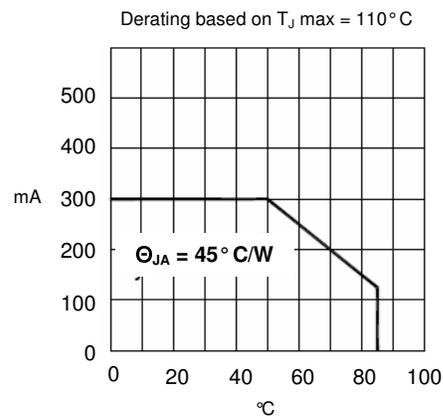
Forward Current vs Forward Voltage



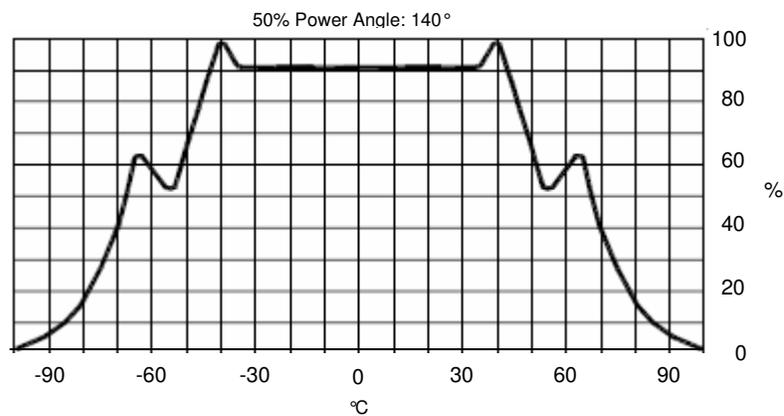
Relative Luminous Flux vs Forward Current



Relative Luminous Intensity vs Wavelength



Maximum Forward DC Current vs Ambient Temperature

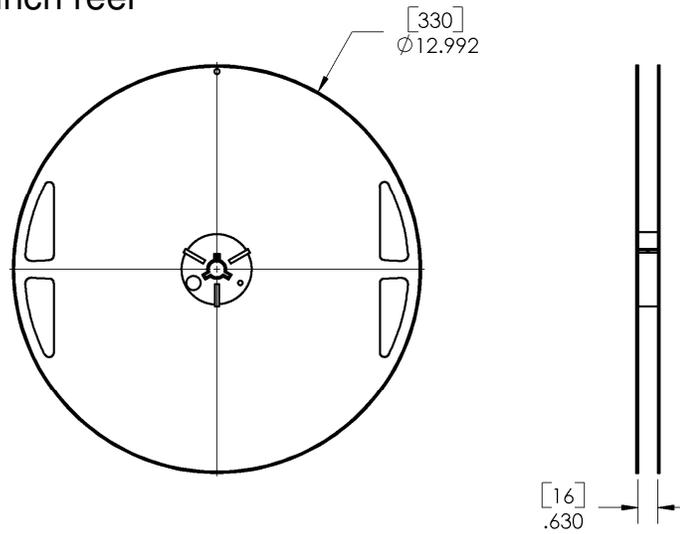


Far Field Pattern

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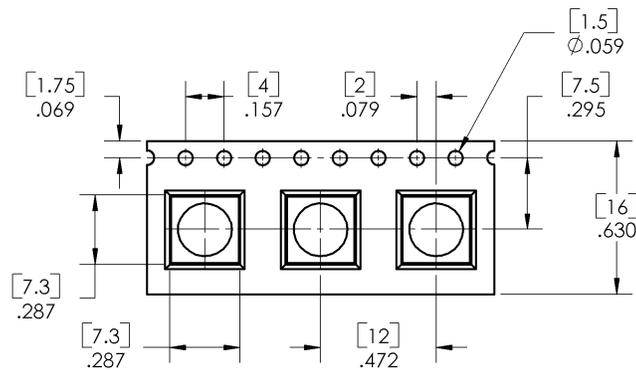
1-Watt SMD Green LED Lamp (7 mm) OVSPGCCR8

Reel Dimensions: 13-inch reel



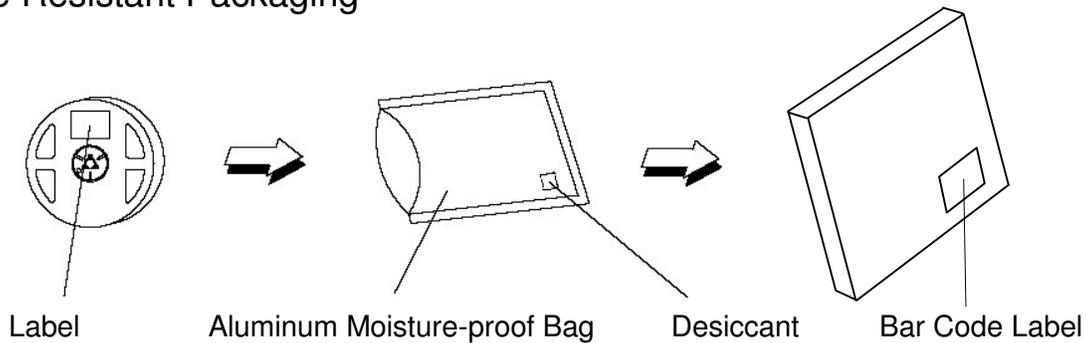
LOADED QUANTITY - 1400 PCS PER REEL

Carrier Tape Dimensions: Loaded quantity 1400 pieces per reel



DIMENSIONS ARE IN INCHES AND [MILLIMETERS].

Moisture Resistant Packaging



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