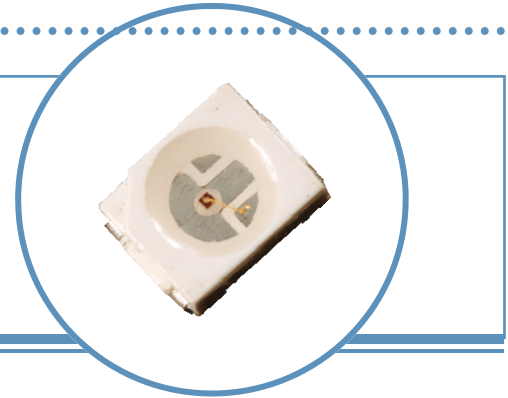


White PLCC4 Surface Mount LED (120° Viewing Angle)

OVSAWBCR4

- High luminous intensity
- High efficiency
- Emission color: White
- Wide variety of application possibilities

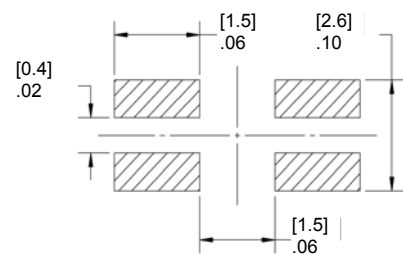
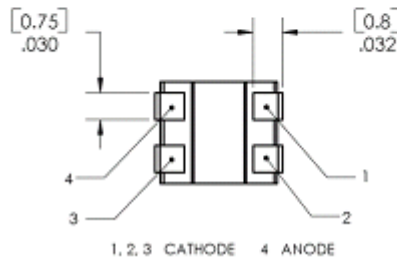
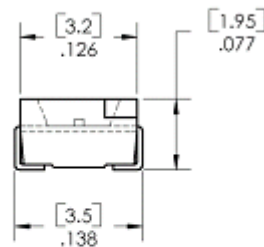
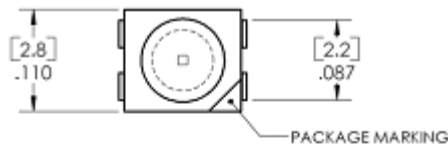


The **OVSAWBCR4** provides high intensity light from a surface mount package. Light output is optimized by an interior reflector and the wide viewing angle adds flexibility for applications ranging from hand-held appliances to automotive interiors.

Applications

- Backlighting of full color LCD
- Automotive interior lighting
- General lighting
- Coupling into light guides
- Entertainment equipment

Part Number	Material	Emitted Color	Intensity Typ.	Lens Color
OVSAWBCR4	InGaN	White	1050 mcd	Water Clear



RECOMMENDED SOLDER PAD DESIGN



DIMENSIONS ARE IN: [MILLIMETERS]
INCHES

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.

White PLCC4 Surface Mount LED

OVSAWBCR4



Absolute Maximum Ratings

T_A = 25° C (on metal core PCB) unless otherwise noted

Storage Temperature Range	-40 ~ + 100°C
Operating Temperature Range	-40 ~ + 100°C
Soldering Temperature (5 second maximum)	260° C
Forward Current	30mA
Peak Forward Current (10% Duty Cycle, 1 KHz)	200 mA
Reverse Voltage	5 V
ESD Threshold (HBM)	2000 V
LED Junction Temperature	125°C
Power Dissipation	135 mW

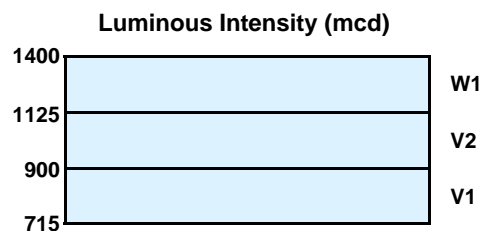
Electrical Characteristics

T_A = 25° C (on metal core PCB) unless otherwise noted

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS
I _V	Luminous Intensity	715	1050	1400	mcd	I _F = 30 mA
V _F	Forward Voltage	3.05	3.4	4.0	V	I _F = 20 mA
I _R	Reverse Current	----	----	10	µA	V _R = 5 V
2 Θ _½	50% Power Angle	----	120	----	deg	I _F = 20 mA
x	Chromaticity Coordinates	----	0.32	----	----	I _F = 20 mA
y		----	0.33	----	----	I _F = 20 mA

Standard Bins (I_F = 30 mA)

Lamps are sorted to luminous intensity (I_V) and chromaticity coordinates (x, y) bins shown. Orders for OVSAWBCR4 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 or chromaticity bins, please contact OPTEK.
4. Part is sensitive to static electricity and precautions must be used when handling products.

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White PLCC4 Surface Mount LED

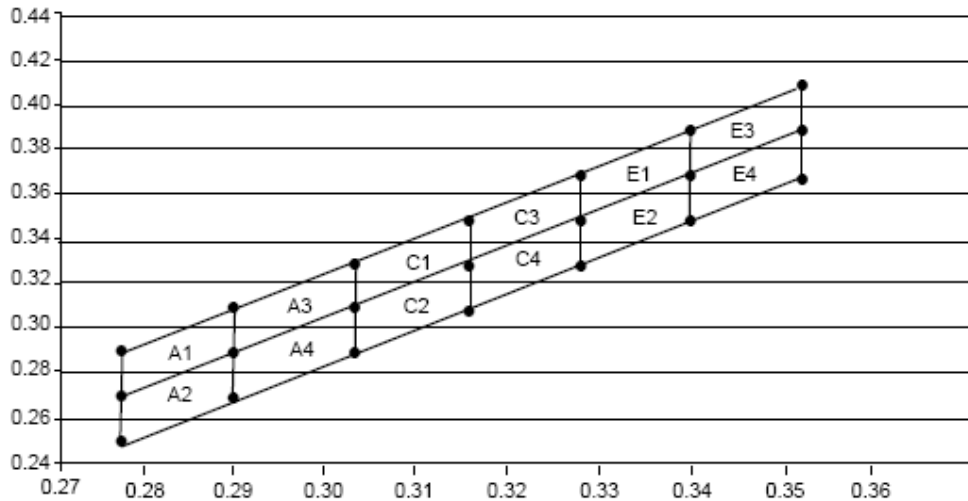
OVSAWBCR4



Standard Bins ($I_F = 30 \text{ mA}$)

Lamps are sorted to luminous intensity (I_V) and chromaticity coordinates bins shown. Orders may be filled with any or all bins contained as below.

White Bin Structure

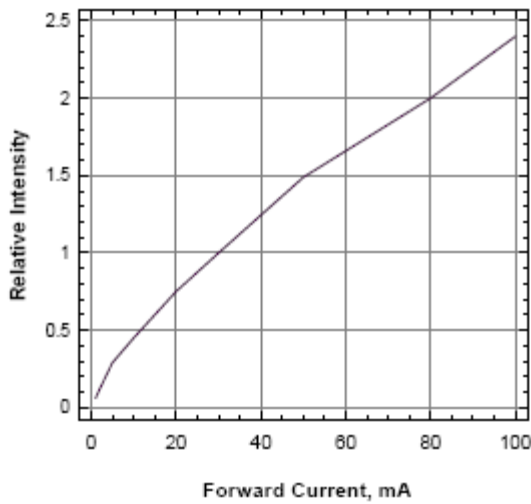


A1	C_x	0.2775	0.2900	0.2900	0.2775
	C_y	0.2732	0.2939	0.3114	0.2907
A2	C_x	0.2775	0.2900	0.2900	0.2775
	C_y	0.2557	0.2764	0.2939	0.2732
A3	C_x	0.2900	0.3025	0.3025	0.2900
	C_y	0.2939	0.3146	0.3321	0.3114
A4	C_x	0.2900	0.3025	0.3025	0.2900
	C_y	0.2764	0.2971	0.3146	0.2939
C1	C_x	0.3025	0.3150	0.3150	0.3025
	C_y	0.3146	0.3354	0.3529	0.3321
C2	C_x	0.3025	0.3150	0.3150	0.3025
	C_y	0.2971	0.3179	0.3354	0.3146
C3	C_x	0.3150	0.3275	0.3275	0.3150
	C_y	0.3354	0.3561	0.3736	0.3529
C4	C_x	0.3150	0.3275	0.3275	0.3150
	C_y	0.3179	0.3386	0.3561	0.3354
E1	C_x	0.3275	0.3400	0.3400	0.3275
	C_y	0.3561	0.3768	0.3943	0.3736
E2	C_x	0.3275	0.3400	0.3400	0.3275
	C_y	0.3386	0.3593	0.3768	0.3561
E3	C_x	0.3400	0.3525	0.3525	0.3400
	C_y	0.3768	0.3975	0.4150	0.3943
E4	C_x	0.3400	0.3525	0.3525	0.3400
	C_y	0.3593	0.3800	0.3975	0.3768

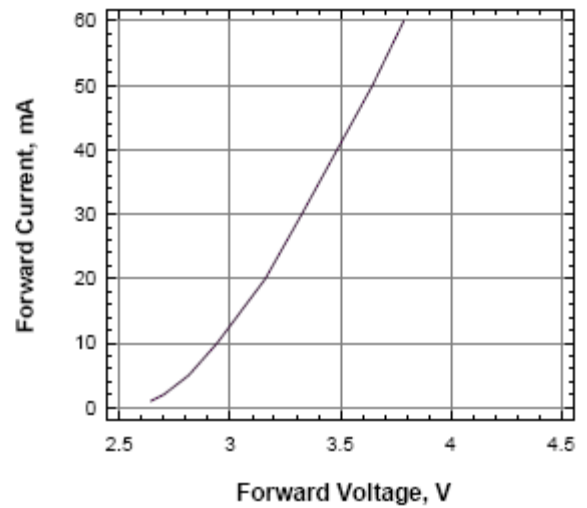
OPTEK reserves the right to make changes at any time in order to improve design and to supply the best product possible.

White PLCC4 Surface Mount LED OVSAWBCR4

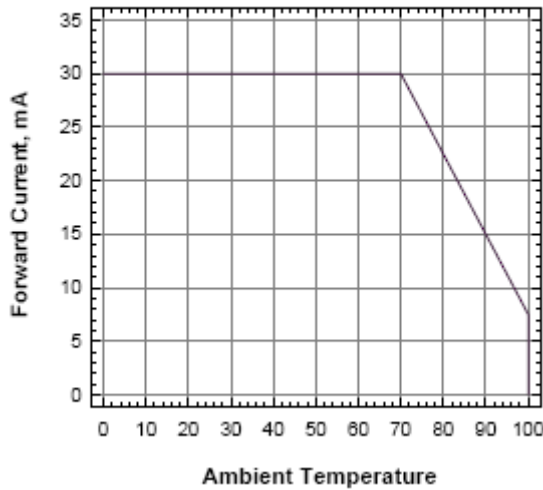
Relative Intensity Vs Forward Current



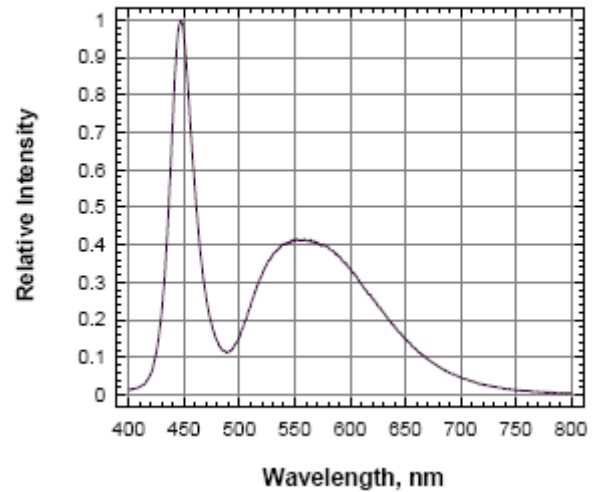
Forward Current Vs Forward Voltage



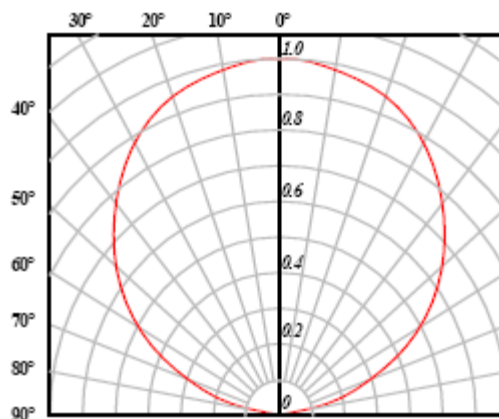
Maximum Current Vs Temperature



Wavelength Vs Forward Current



Radiation Pattern

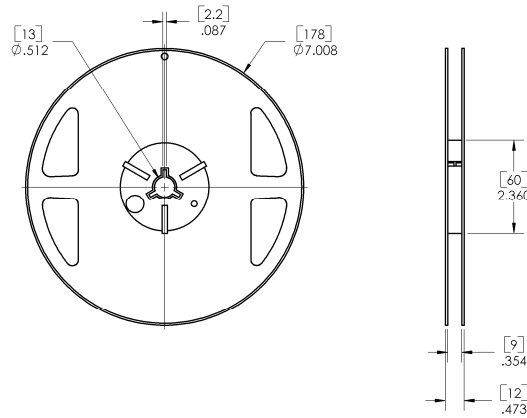


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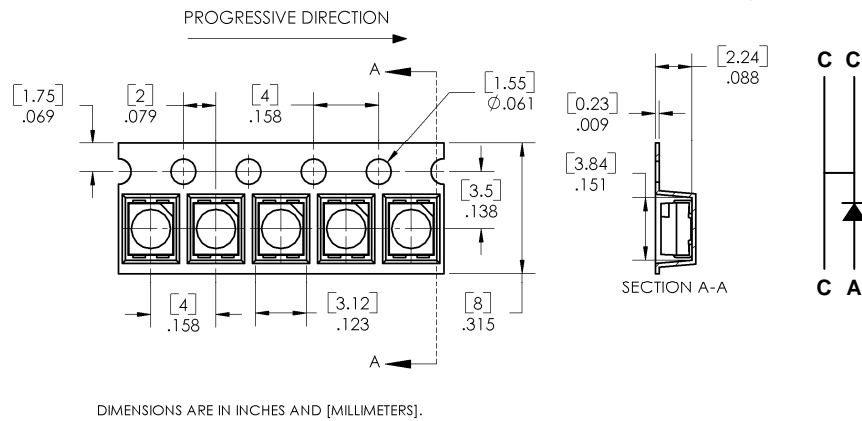
White PLCC4 Surface Mount LED

OVSAWBCR4

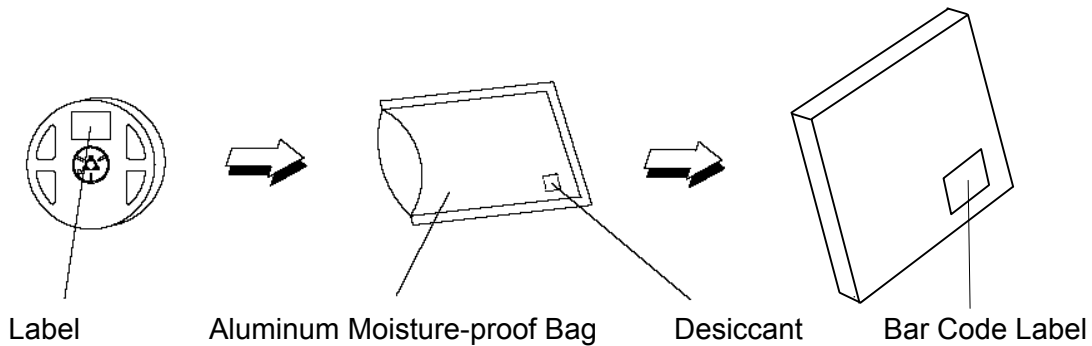
Reel Dimensions: 7-inch reel



Carrier Tape Dimensions: Loaded quantity 2000 pieces per reel

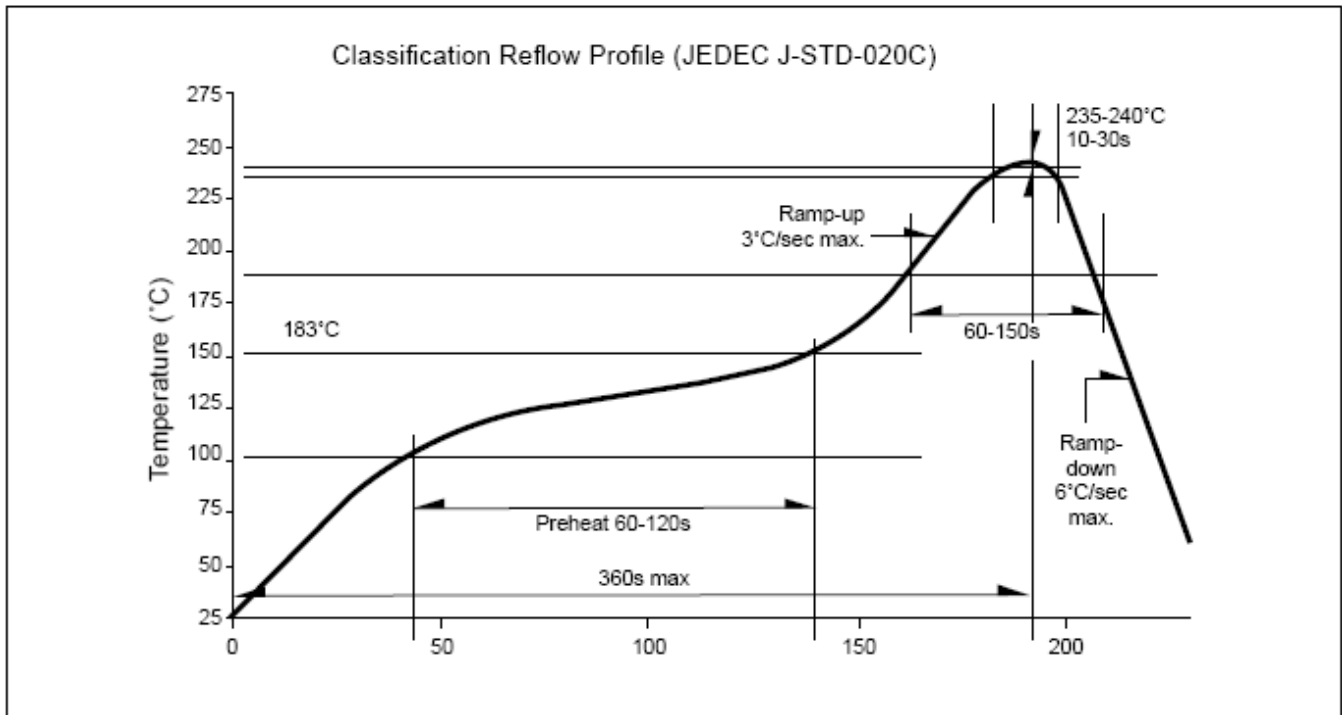


Moisture Resistant Packaging



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Recommended Sn-Pb IR-Reflow Soldering Profile



Recommended Pb-free Soldering Profile

