

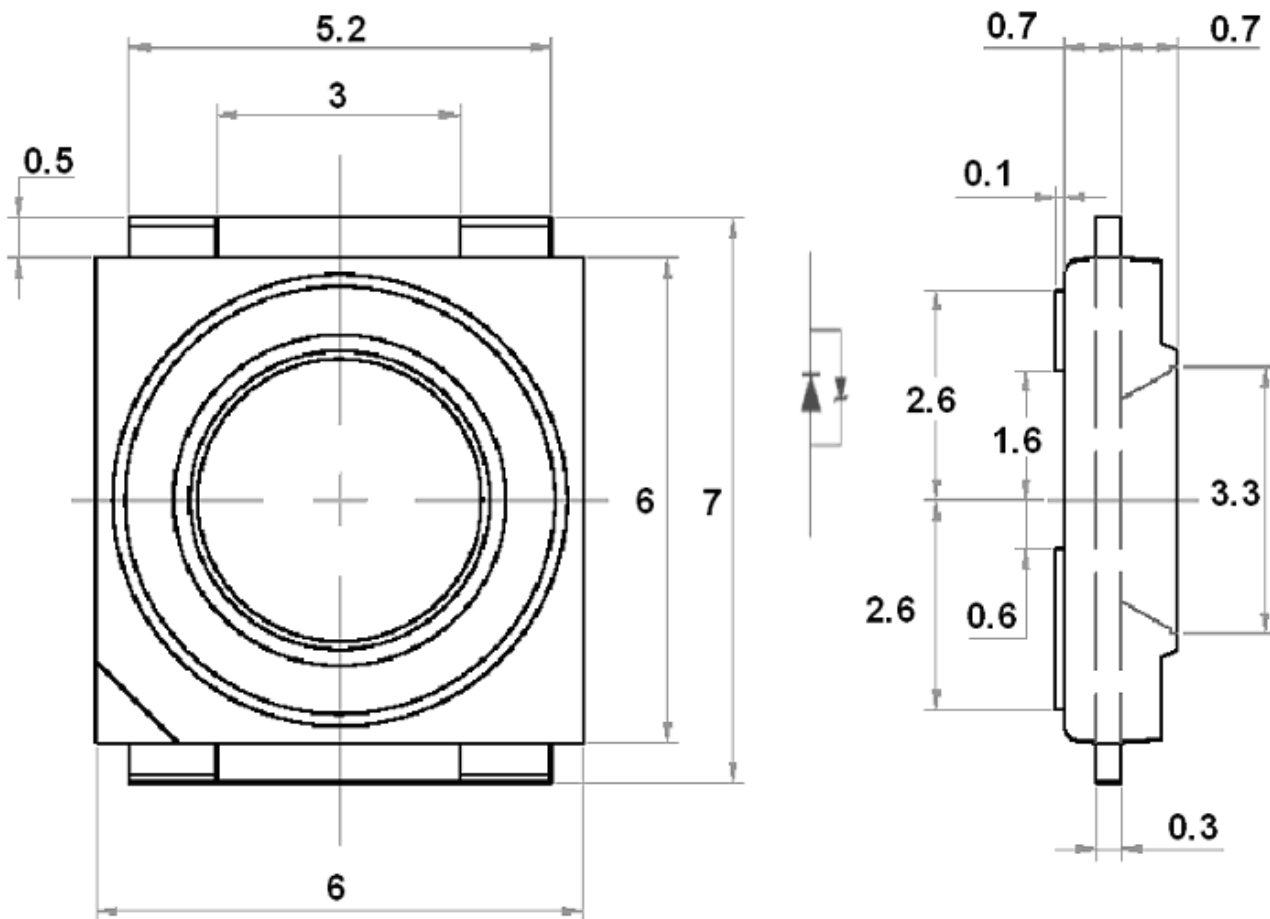


# American Opto Plus L-995UWMC

6 x 6 x 1.5mm ULTRA BRIGHT SMD

- ❖ High current drive device: Typ. 150mA
- ❖ High flux output
- ❖ Compatible to IR-reflow soldering
- ❖ RoHS Compliance

## PACKAGE DIMENSIONS



Notes: Unit = mm, Tolerance =  $\pm 0.10$ mm unless otherwise specified

Part Number	Chip	Viewing Angle	Flux lm (typ) $I_F = 150\text{mA}$	Luminous Intensity mcd (min - typ) $I_F = 150\text{mA}$
L995UWMC	InGaN	120°	21	5600 - 11250



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### ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

Parameter	Symbol	Max Rating	Unit
DC Forward Current	I <sub>F</sub>	180	mA
Peak Pulse Current (tp ≤ 10us, Duty Cycle = 0.005)	I <sub>p</sub>	350	mA
Reverse Voltage	V <sub>R</sub>	-	V
ESD Threshold (HBM)	ESD	2000	V
LED Junction Temperature		125	°C
Operating Temperature Range	T <sub>OPR</sub>	-40 ~ +100	°C
Storage Temperature Range	T <sub>STG</sub>	-40 ~ +100	°C
Power dissipation	P <sub>D</sub>	700	mW

### OPTICAL CHARACTERISTICS AT 25°C, I<sub>F</sub> = 150mA, R<sub>JA</sub> = 100K/W L955UWC (White)

Symbol	I <sub>v</sub>		V <sub>F</sub>	V <sub>F</sub>	
Parameter	Luminous Intensity		Luminous Flux	Forward Voltage	
Condition	I <sub>F</sub> = 150mA		I <sub>F</sub> = 150mA	I <sub>F</sub> = 150mA	
Unit	Mcd		lm	V	
Binning	Grade	Range	Range	Grade	Range
	Z2	5600 – 7150	14.0 – 17.9	Min.	3.0
	AA	7150 - 9000	17.9 – 22.5	Type.	3.2
	AB	9000 - 11250	22.5 – 28.1	Max.	3.7



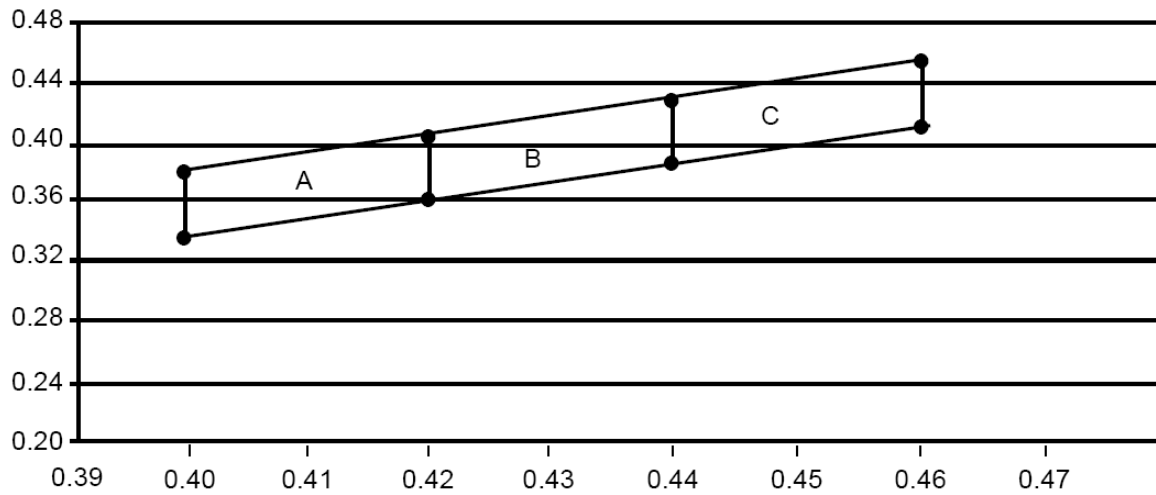
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## WHITE BIN STRUCTURE

White Bin Structure



## WHITE COLOR BINNING

Bin		1	2	3	4
A	Cx	0.400	0.420	0.420	0.400
	CY	0.340	0.362	0.408	0.387
B	Cx	0.420	0.440	0.440	0.420
	CY	0.362	0.383	0.430	0.408
C	Cx	0.440	0.460	0.460	0.440
	CY	0.383	0.405	0.452	0.430



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**CORRELATED COLOR TEMPERATURE (CCT)**

Color Bin	Minimum CCT (K)	Maximum CCT (K)
A	3300	3600
B	3000	3300
C	2800	3000

Note: CCT values provided for each of the color bins are an approximation based on correlation.

Notes:

- 1) Luminous intensity is measured with an accuracy of  $\pm 11\%$
- 2) Wavelength binning is carried for all units as per the wavelength-binning table. Only one wavelength group is allowed for each reel.
- 3) Chromaticity coordinate groups are measured with an accuracy of  $\pm 0.01$ .
- 4) An optional Vf binning is also available upon request. Please request for special part number.  
Forward voltage is measured with a current pulse of 1ms and an accuracy of  $\pm 0.1$  V.



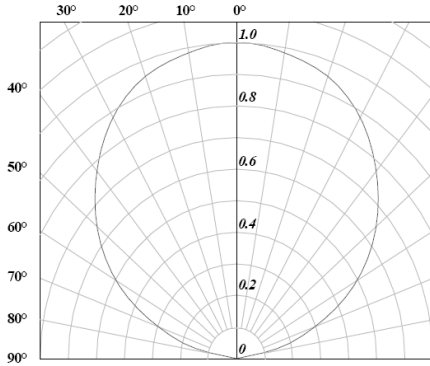
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## TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES

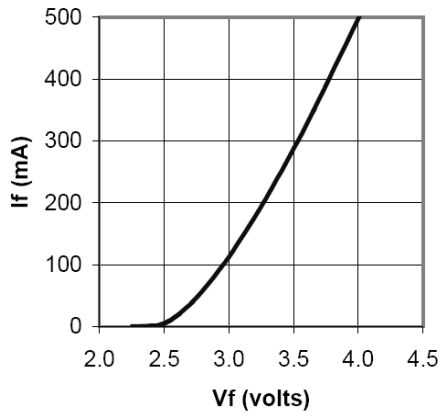
Radiation Diagram



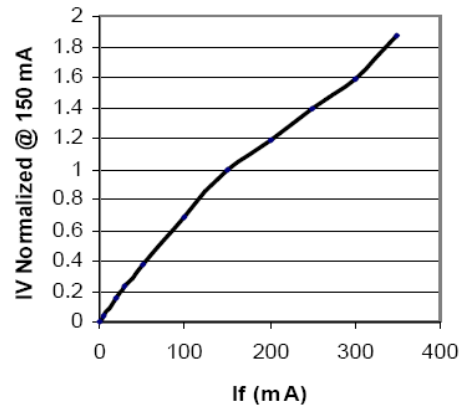
White Color vs. Forward Current

TBD

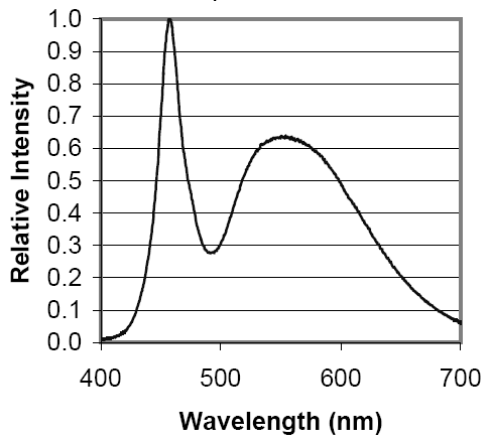
Forward Current vs. Forward Voltage



Luminous Intensity vs. Forward Current (If = 150mA)



Relative Spectra Emission



Maximum Forward Current vs. Temperature

TBD



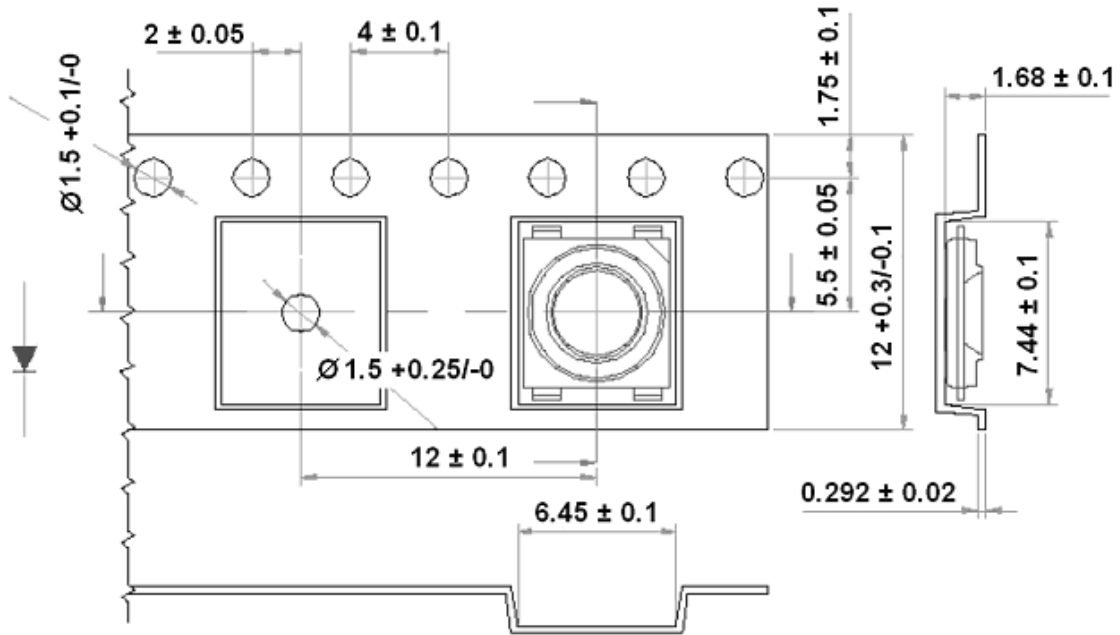
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## TAPING AND ORIENTATION

Reels come in quantity of 2000 units. Reel diameter is 330mm.



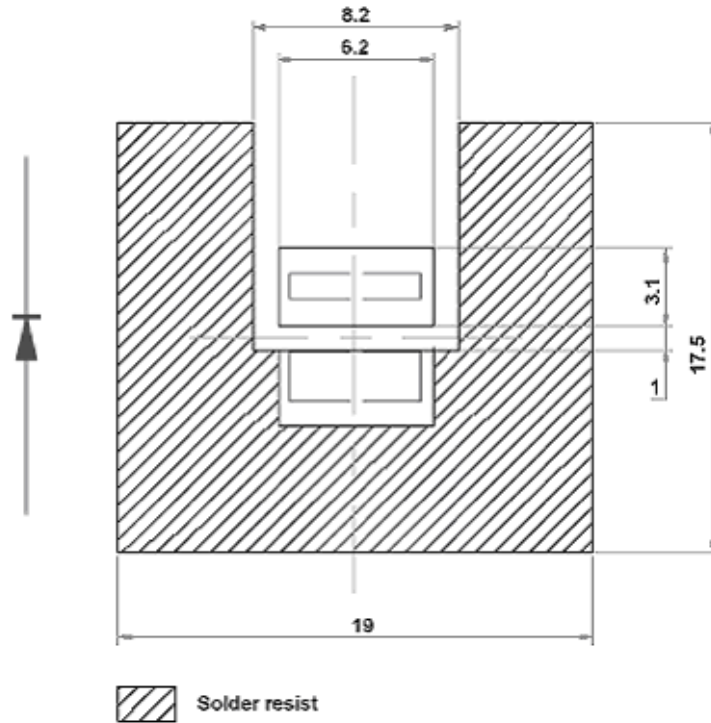


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## RECOMMENDED SOLDER PAD DESIGN (for better heat dissipation)



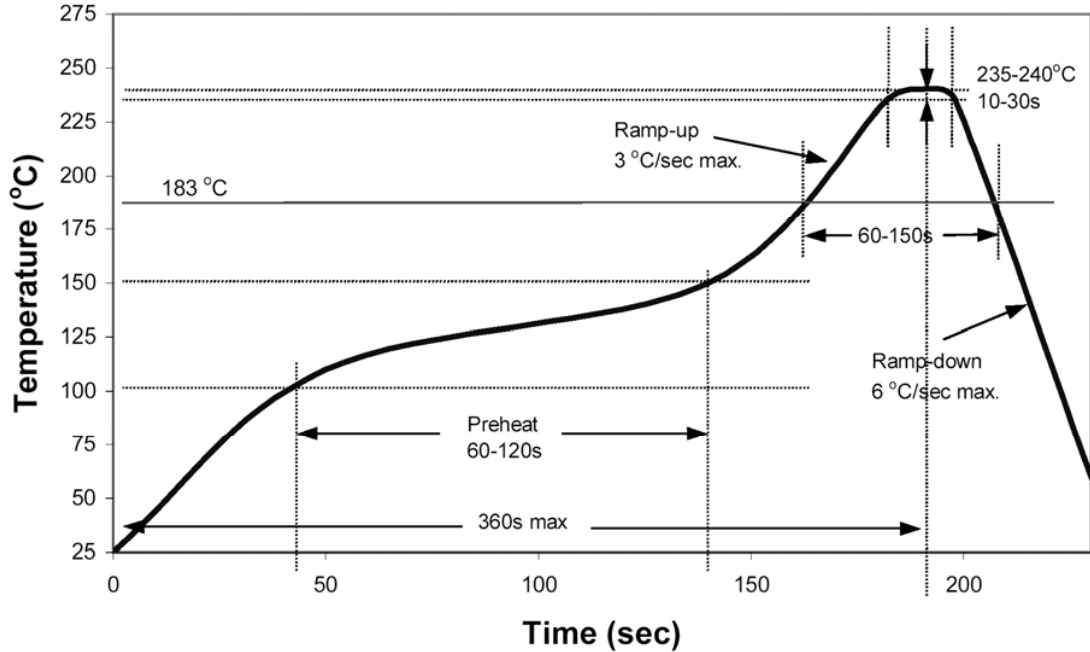


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## RECOMMENDED Sn-Pb IR-REFLOW SOLDERING PROFILE Classification Reflow Profile (JEDEC J-STD-020C)



## RECOMMENDED Pb-FREE IR-REFLOW SOLDERING PROFILE Classification Reflow Profile (JEDEC J-STD-020C)

