

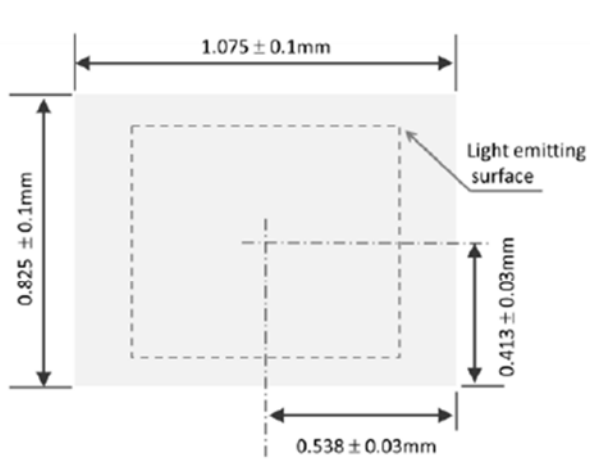


# American Opto Plus LED Corp.

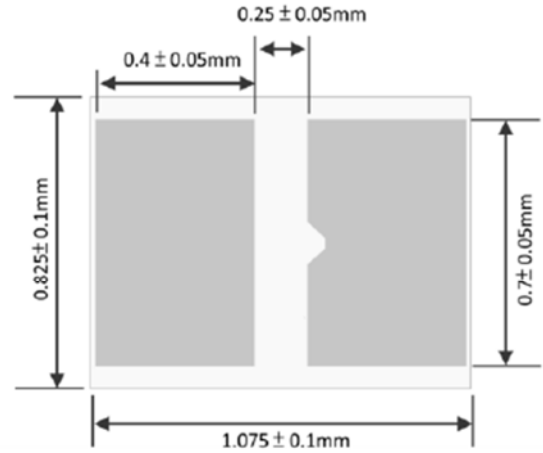
## L108UWC-WW2700K

1.075 x 0.825 x 0.75mm WARM WHITE POWER SMD

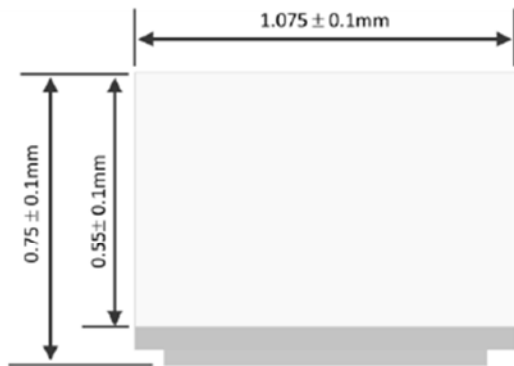
### PACKAGE OUTLINES



Top View



Bottom View



Side View



#### Notes:

1. All dimensions are in millimeters
2. Tolerances unless mentioned are ± 0.1mm



**American Opto Plus LED Corp.**  
**L108UWC-WW2700K**  
**1.075 x 0.825 x 0.75mm WARM WHITE POWER SMD**

**ABSOLUTE MAXIMUM RATINGS**

**(Ta=25°C)**

Parameter	Symbol	Max Rating	Unit
Typ. Forward Current	I <sub>F</sub>	350	mA
Max. Forward Current	I <sub>F</sub>	500	mA
Max. Peak Pulse Current	I <sub>FP</sub>	700	mA
Reverse Current	V	5	V
Power Dissipation (@350mA)	P <sub>D</sub>	1.15 (typ)	W
Junction Temperature	T <sub>J</sub>	125	°C
Operating Temperature	T <sub>OPR</sub>	-40 ~ +85	°C
Storage Temperature	T <sub>STG</sub>	-40 ~ +100	°C
Recommended Soldering Temperature	T <sub>SOL</sub>	240	°C
Thermal Resistance	θ <sub>th</sub>	4	°C/W
Allowable Reflow Cycles	-	3	Cycles
ESD Sensitivity	HBM	±8000	V

**OPTICAL-ELECTRICAL CHARACTERISTICS**

**(Ta=25°C)**

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Luminous Flux	Φ <sub>V</sub>	350mA	--	90	--	lm
Correlated Color Temp.	CCT		2580	--	2870	K
Forward Voltage	V <sub>F</sub>		--	3.3	--	V
Viewing Angle	2θ <sub>1/2</sub>		--	155	--	deg
CRI	R <sub>A</sub>		--	80	--	--
Thermal Resistance	Rθ <sub>J-C</sub>		--	<4	--	°C/W

Notes:

1. Viewing angle tolerance: ±10°
2. Luminous flux & power measurement tolerance: ±7%
3. CRI tolerance: ±3

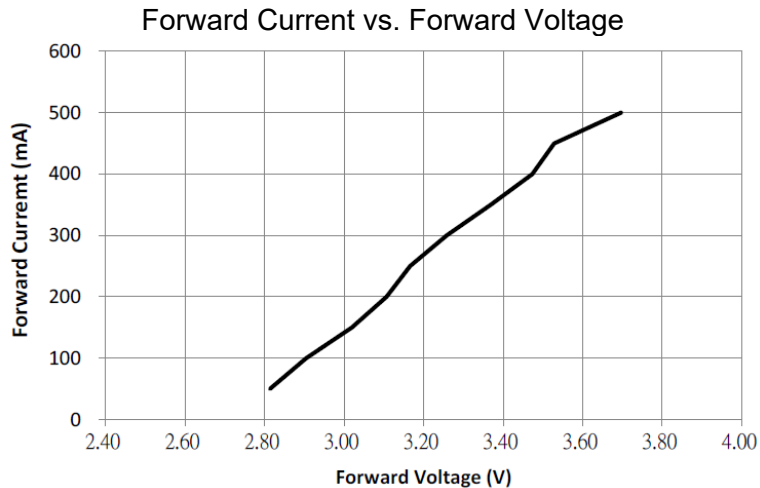
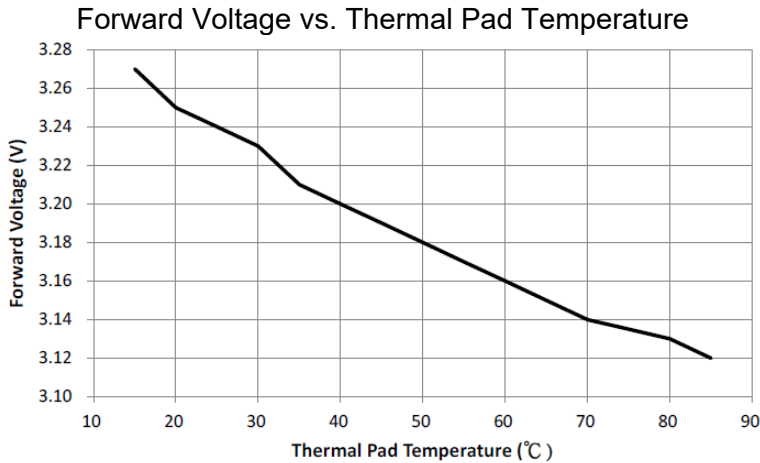
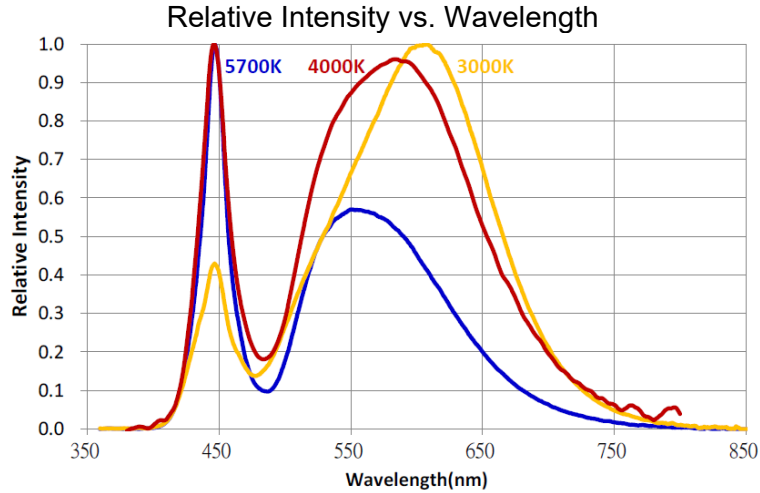


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### OPTICAL-ELECTRICAL CHARACTERISTICS

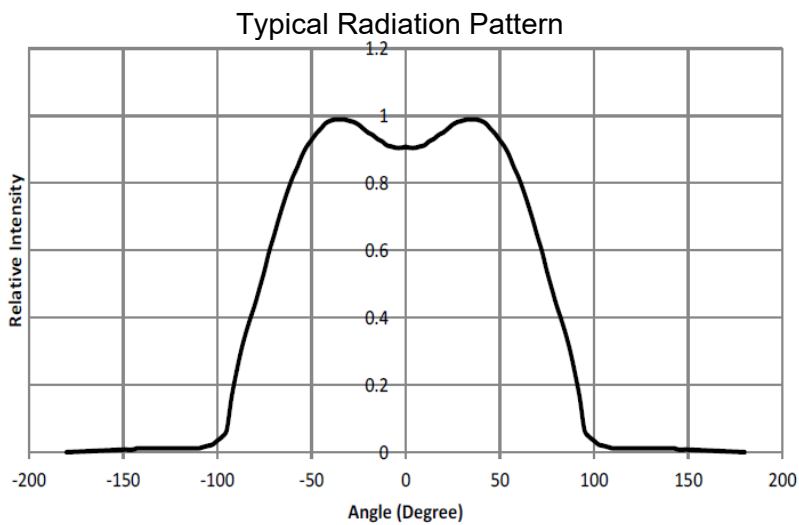
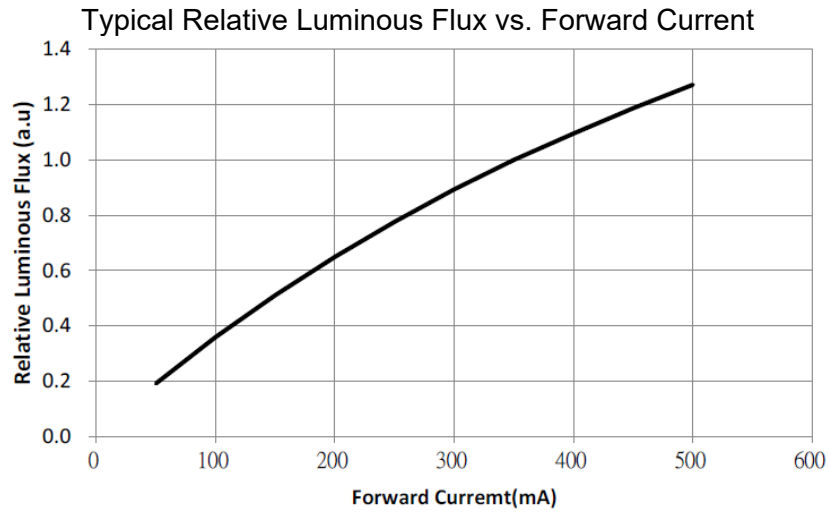




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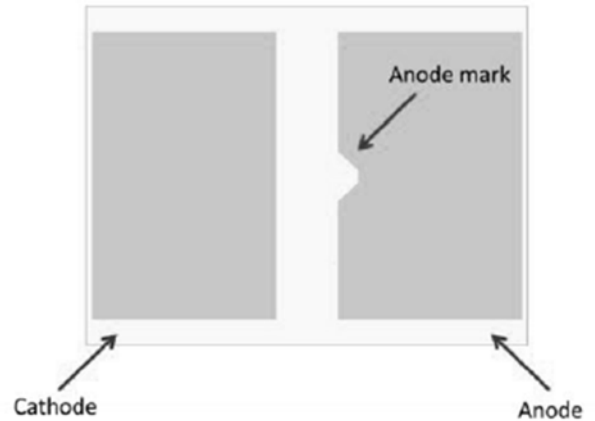


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**RECOMMENDED SOLDERING PAD PATTERN**

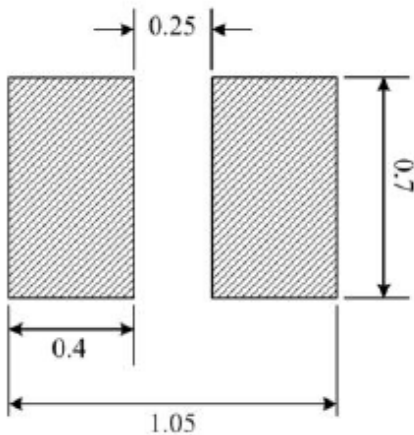


**Top View**

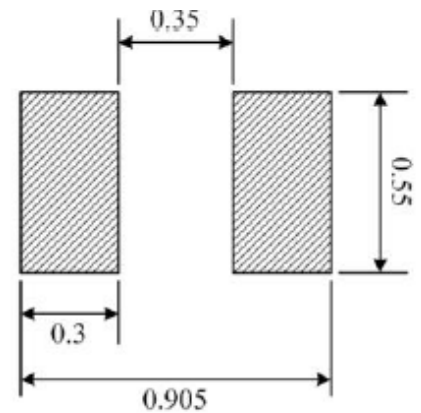


**Bottom View**

**RECOMMENDED PCB SOLDER PAD**



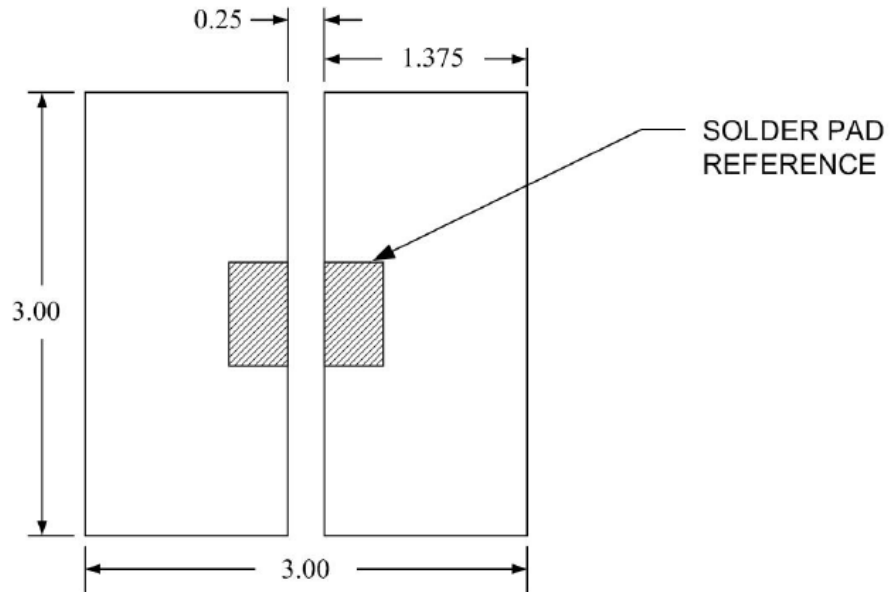
**RECOMMENDED STENCIL PATTERN**





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**RECOMMENDED TRACE LAYOUT**



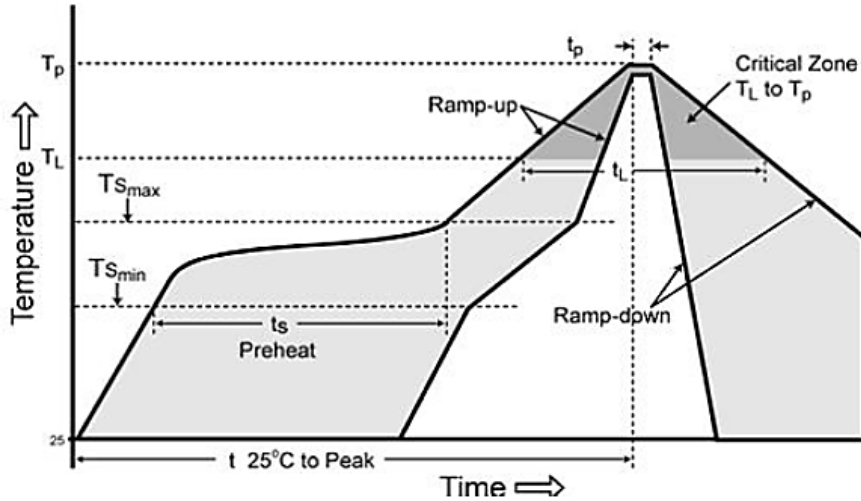
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**REFLOW SOLDERING CHARACTERISTICS**



Profile Feature	Pb-Free Assembly
Average ramp-up rate (TL to TP)	3°C/second max
Preheat	
Temperature Min (T <sub>SMIN</sub> )	150°C
Temperature Max (T <sub>SMAX</sub> )	200°C
Time (min to max) (t <sub>s</sub> )	60-180 seconds
Time maintained above:	
Temperature (TL)	217°C
Time (t <sub>L</sub> )	60-150 seconds
Peak/Classification Temperature (T <sub>p</sub> )	240°C
Time within 5°C of actual Peak Temperature (t <sub>p</sub> )	20-40 seconds
Ramp-down rate	6°C/second max
Time 25°C to Peak Temperature	8 minutes max

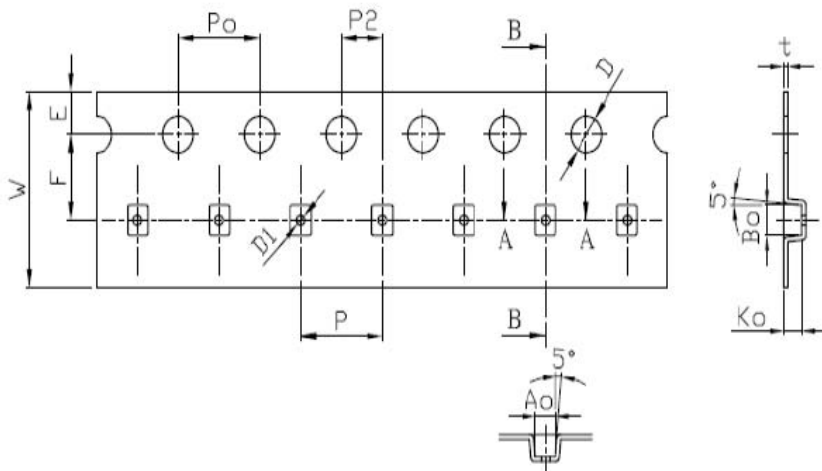
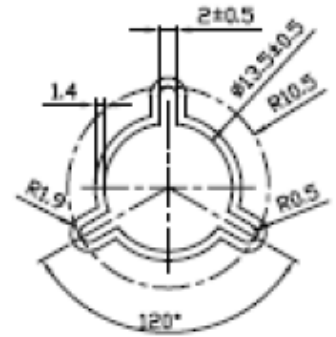
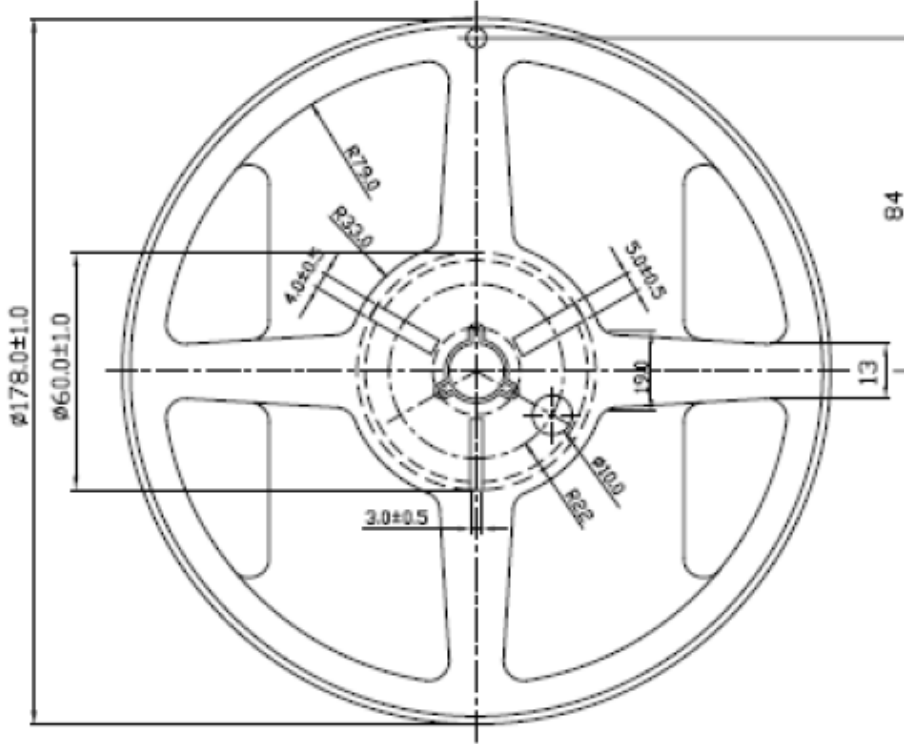


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### TAPE AND REEL PACKAGE DIMENSIONS



Symbol	Dimension	Tolerance
W	8.00	$\pm 0.1$
P	4.00	$\pm 0.1$
E	1.75	$\pm 0.1$
F	3.50	$\pm 0.05$
P2	2.00	$\pm 0.05$
D	1.50	+0.1/-0.0
D1	0.40	$\pm 0.1$
P0	4.00	$\pm 0.1$
10P0	40.00	$\pm 0.2$
A0	1.00	$\pm 0.05$
B0	1.23	$\pm 0.05$
K0	0.90	$\pm 0.05$
t	0.20	$\pm 0.05$

Note: Dimensions are in millimeters.