

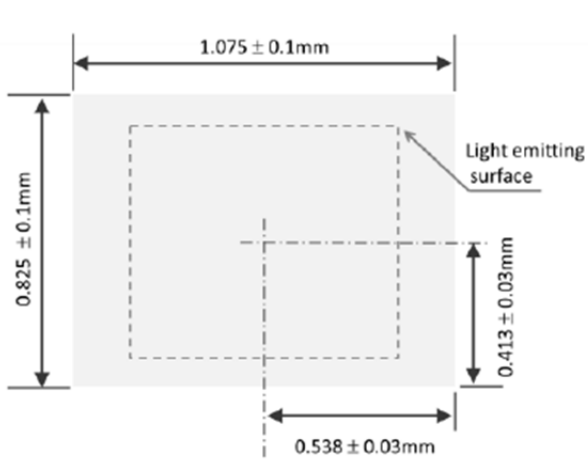


American Opto Plus LED Corp.

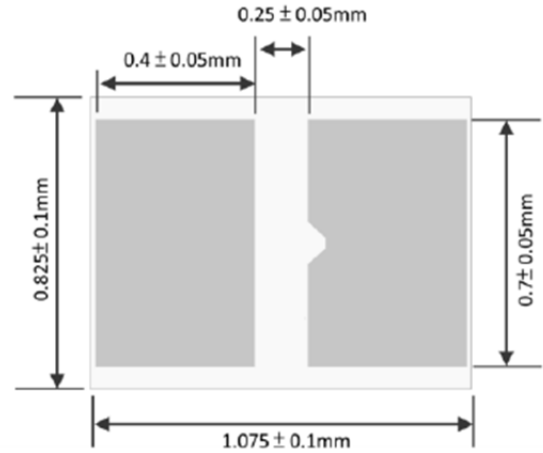
L108UWC-NW

1.075 x 0.825 x 0.75mm NEUTRAL WHITE POWER SMD

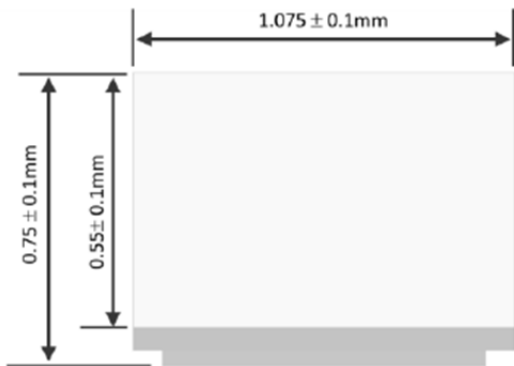
PACKAGE OUTLINES



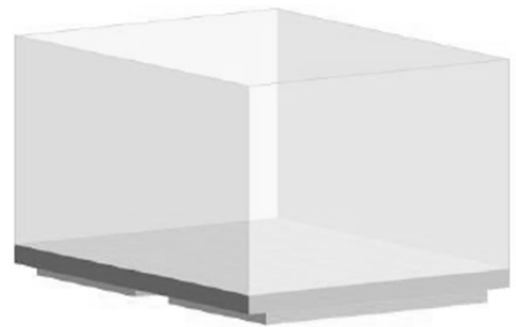
Top View



Bottom View



Side View



Notes:

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



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ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

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

OPTICAL-ELECTRICAL CHARACTERISTICS

(Ta=25°C)

Parameter	Symbol	Test Condition	Kelvin Temp.	Min	Typ	Max	Unit
Luminous Flux	Φ _V	350mA	4000K	--	110/100	--	Lm
Correlated Color Temp.	CCT			3710	--	4260	K
Forward Voltage	V _F			--	3.3	--	V
Viewing Angle	2θ _{1/2}			--	155	--	deg
CRI	R _A			--	75/80	--	--
Thermal Resistance	Rθ _{J-C}			--	<4	--	°C/W

Notes:

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

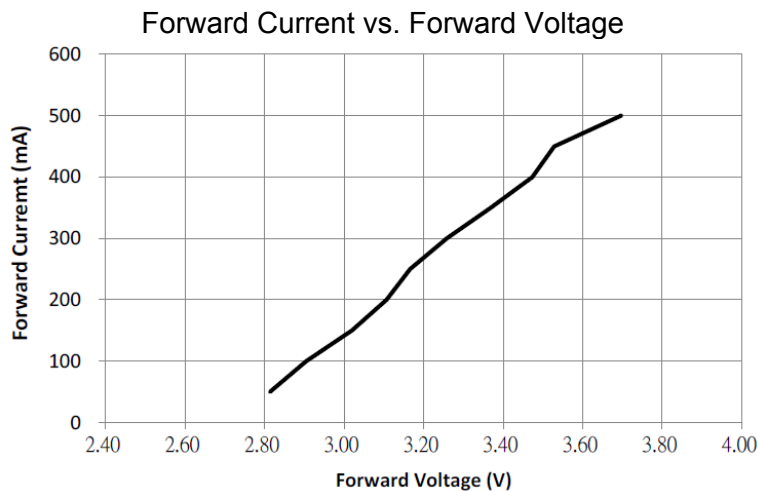
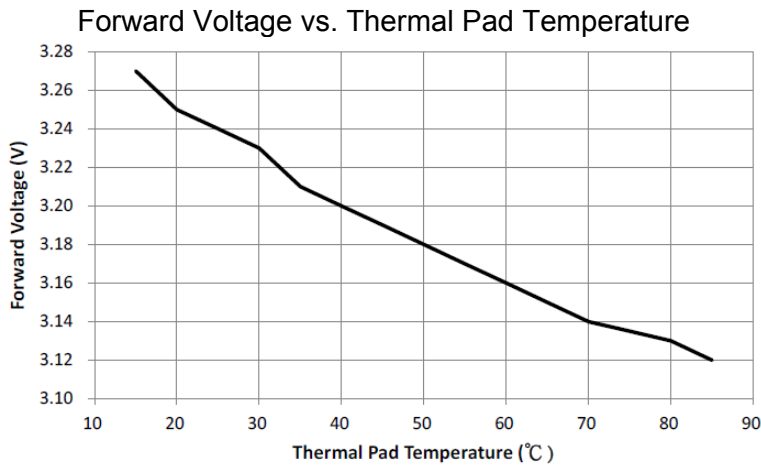
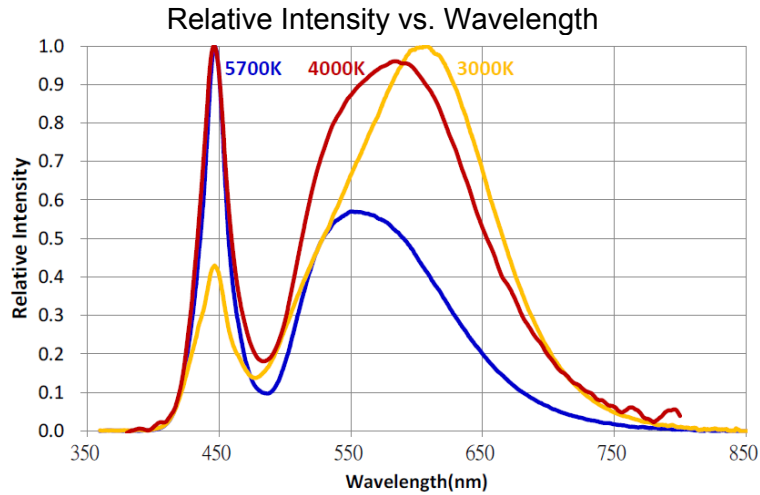


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OPTICAL-ELECTRICAL CHARACTERISTICS

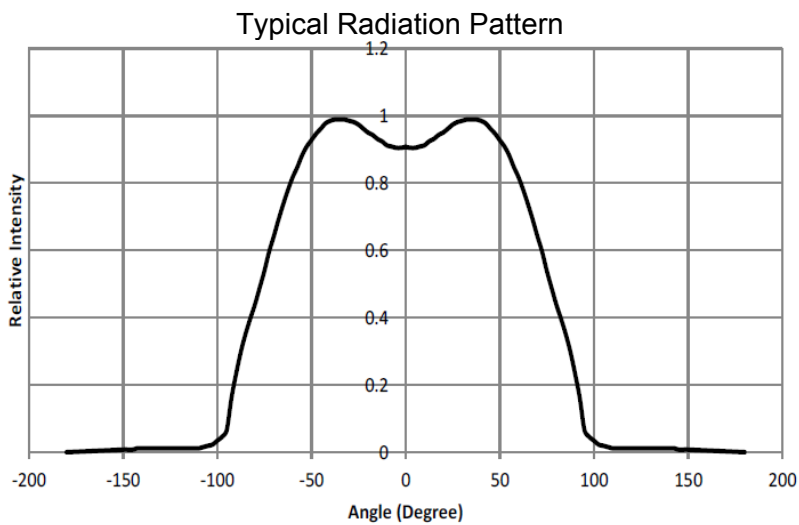
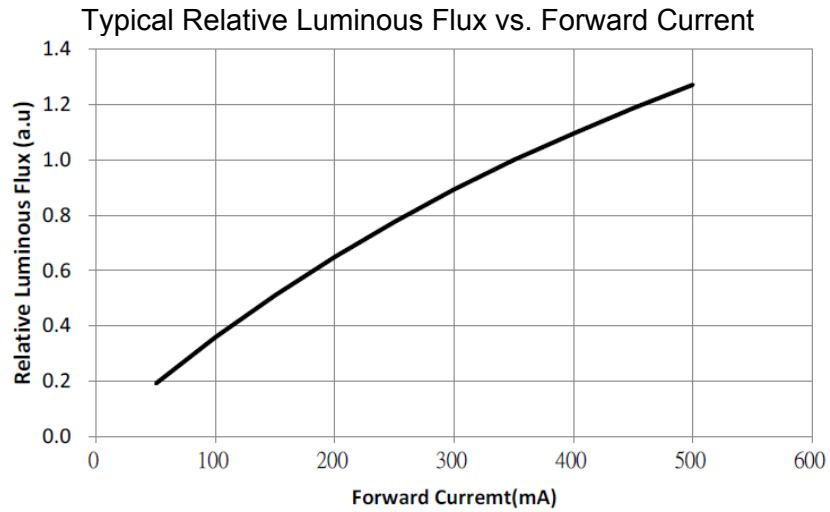




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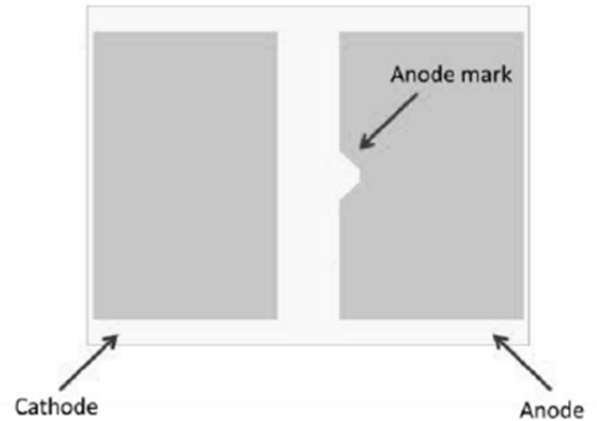


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RECOMMENDED SOLDERING PAD PATTERN

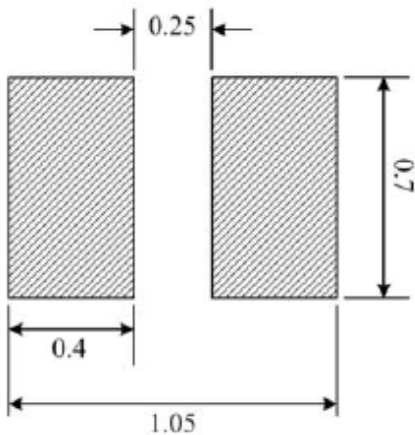


Top View

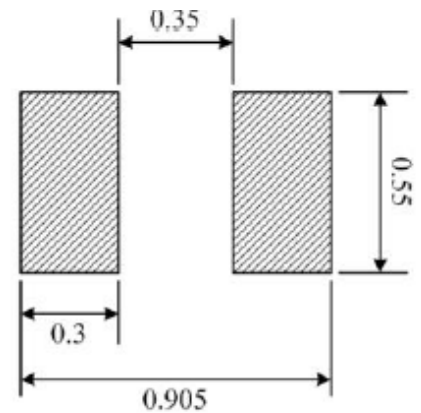


Bottom View

RECOMMENDED PCB SOLDER PAD



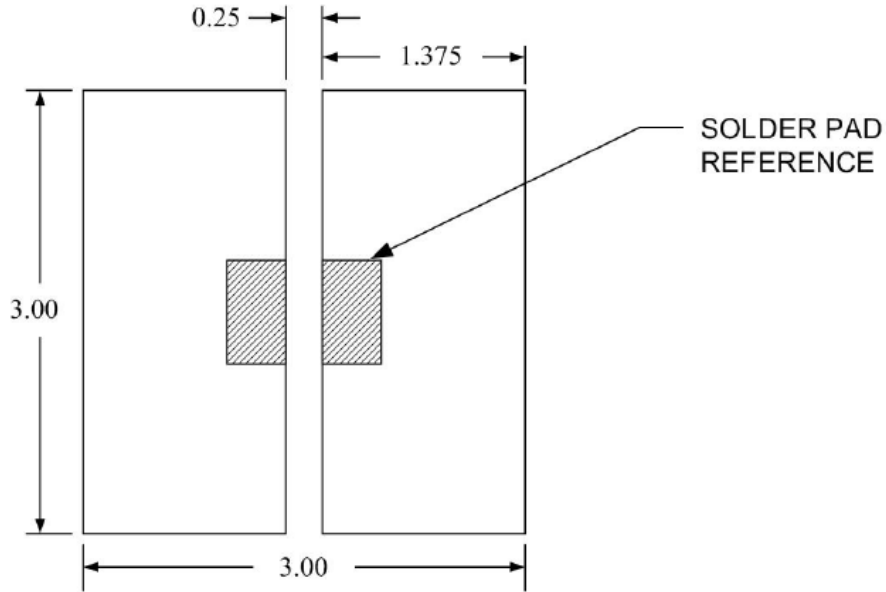
RECOMMENDED STENCIL PATTERN





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RECOMMENDED TRACE LAYOUT



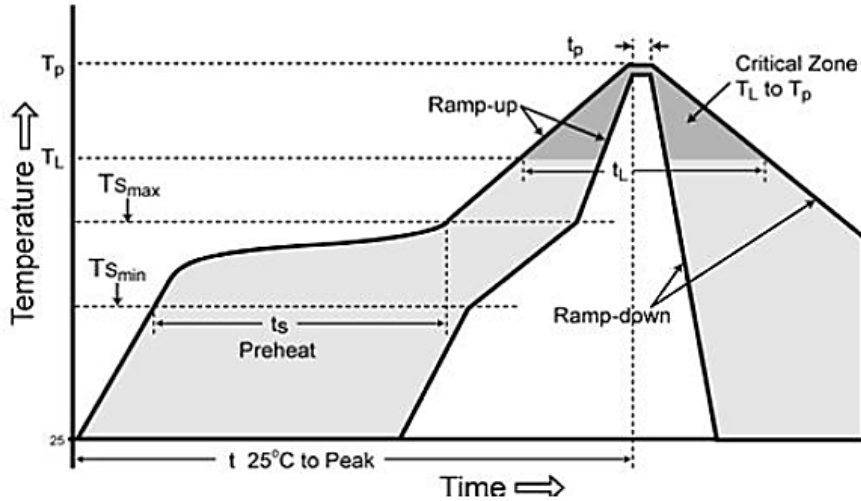
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REFLOW SOLDERING CHARACTERISTICS



Profile Feature	Pb-Free Assembly
Average ramp-up rate (TL to TP)	3°C/second max
Preheat	
Temperature Min ($T_{S_{MIN}}$)	150°C
Temperature Max ($T_{S_{MAX}}$)	200°C
Time (min to max) (t_s)	60-180 seconds
Time maintained above:	
Temperature (TL)	217°C
Time (t_L)	60-150 seconds
Peak/Classification Temperature (T_p)	240°C
Time within 5°C of actual Peak Temperature (t_p)	20-40 seconds
Ramp-down rate	6°C/second max
Time 25°C to Peak Temperature	8 minutes max

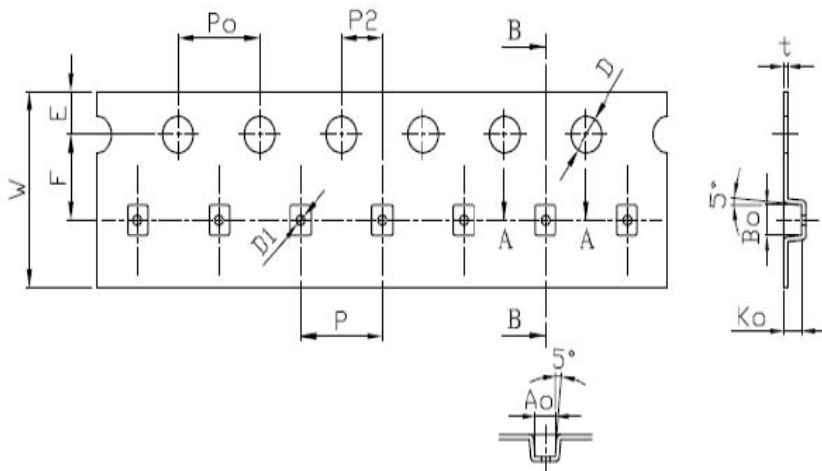
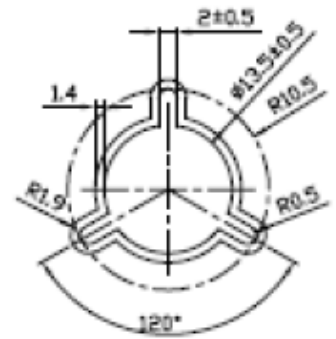
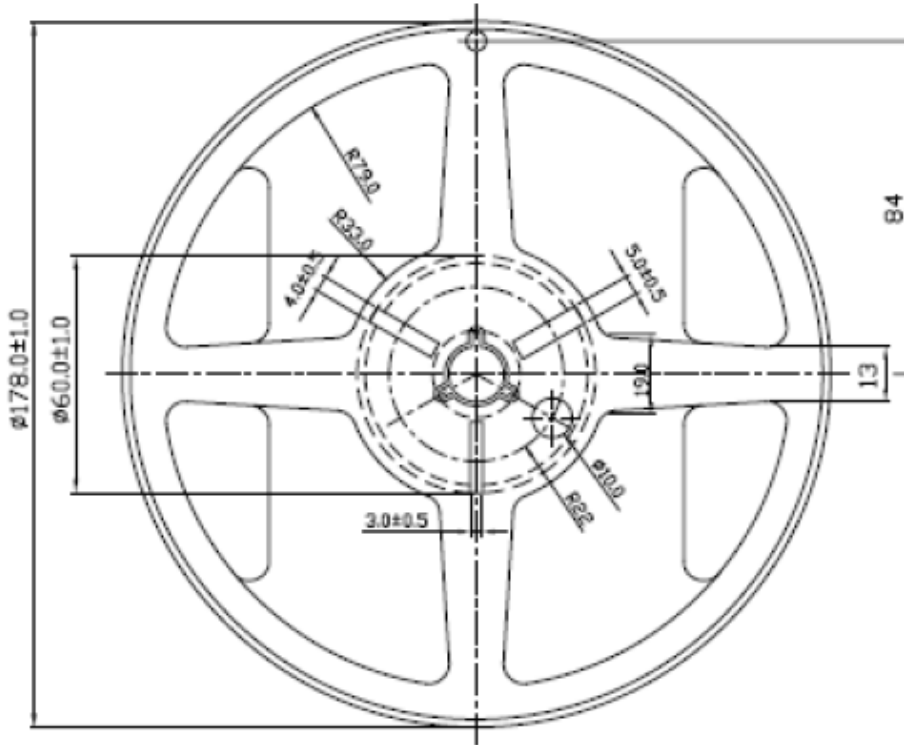


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TAPE AND REEL PACKAGE DIMENSIONS



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

Note: Dimensions are in millimeters.