

Selection Guide

Part No.	Dice	Lens Type	luminous Intensity Iv (cd)@ 500 mA [2]		Φv (lm) @ 500 mA [2]		Viewing Angle [1]
			Min.	Typ.	Min.	Typ.	2θ1/2
AAD1-9090SY9ZC/2	Super Bright Yellow (AlGaInP)	WATER CLEAR	16	20	46	58	100°

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. Luminous intensity / luminous flux: +/-15%.

Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power dissipation	Pt	1.28	W
Junction temperature	TJ	110	°C
Operating Temperature	Top	-40 To +100	°C
Storage Temperature	Tstg	-40 To +100	°C
DC Forward Current [1]	IF	500	mA
Peak Forward Current [2]	IFM	700	mA
Thermal resistance [1]	Rth j-slug	12	°C/W
Electrostatic Discharge Threshold (HBM)		8000	V
Iron Soldering [3]		350°C For 3 Seconds	

Notes:

1. Results from mounting on MCPCB.
2. 1/10 Duty Cycle, 0.1ms Pulse Width.
3. 1.29mm distance from solder joint to package.

Electrical / Optical Characteristics at TA=25°C

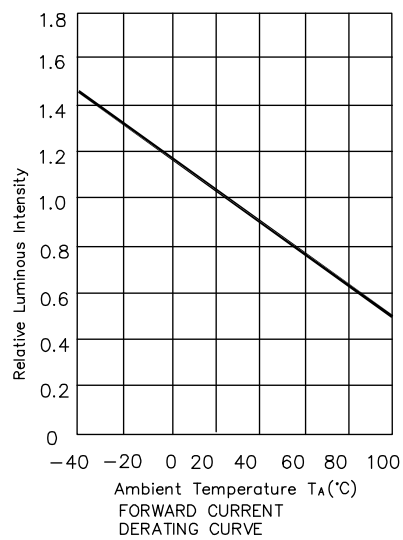
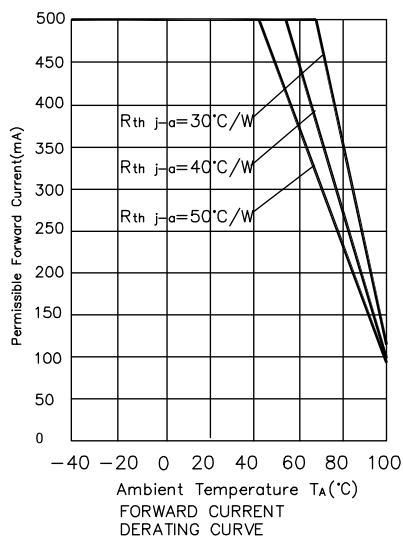
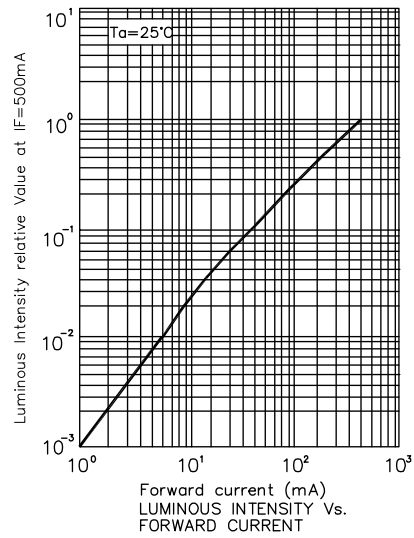
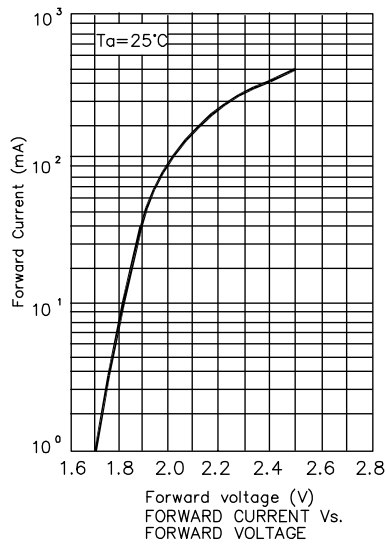
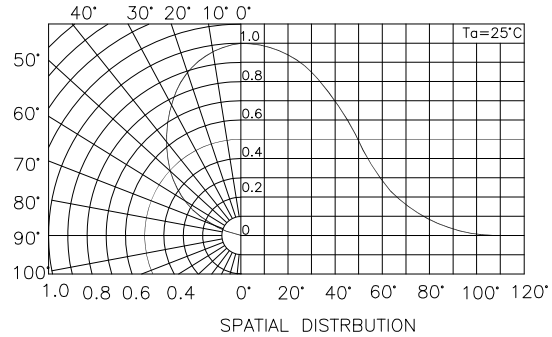
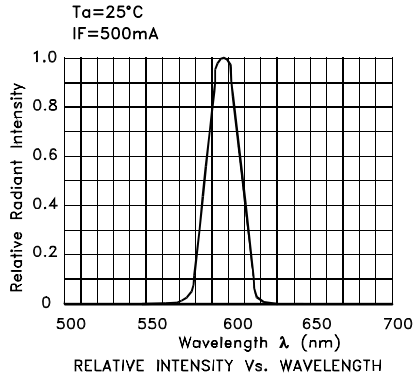
Parameter	Symbol	Value	Unit
Wavelength at peak emission IF=500mA [Typ.]	λpeak	598	nm
Dominant Wavelength IF=500mA [Typ.]	λ dom [1]	591	nm
Spectral bandwidth at 50%ΦREL MAX IF=500mA [Typ.]	Δλ	23	nm
Forward Voltage IF=500mA [Min.]	VF [2]	2.0	V
Forward Voltage IF=500mA [Typ.]		2.5	
Forward Voltage IF=500mA [Max.]		3.1	
Temperature coefficient of λpeak IF=500mA, -10°C ≤ T ≤ 100°C [Typ.]	TCλpeak	0.12	nm/°C
Temperature coefficient of λdom IF=500mA, -10°C ≤ T ≤ 100°C [Typ.]	TCλdom	0.07	nm/°C
IF=500mA, -10°C ≤ T ≤ 100°C [Typ.]	TCv	-2.6	mV/°C

Notes:

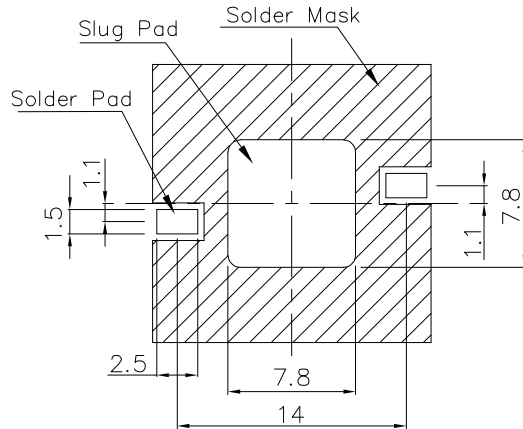
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Kingbright

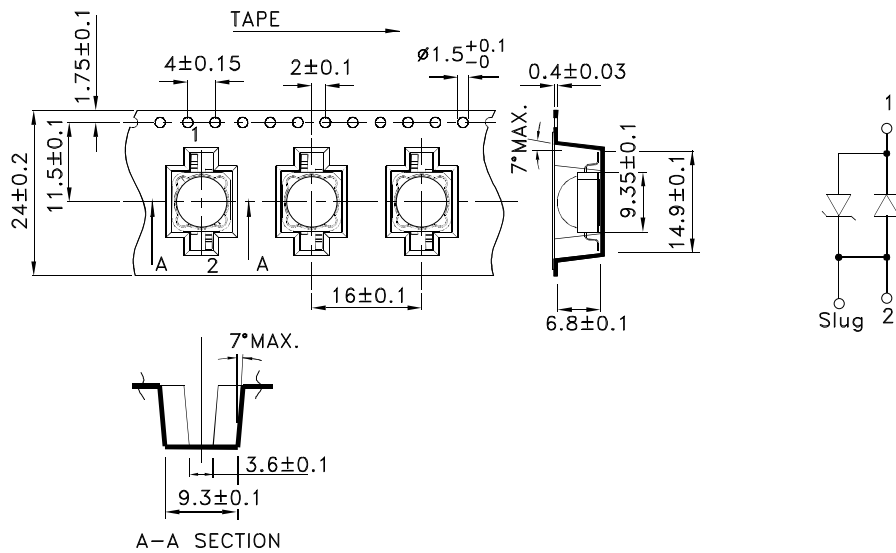
AAD1-9090SY9ZC/2



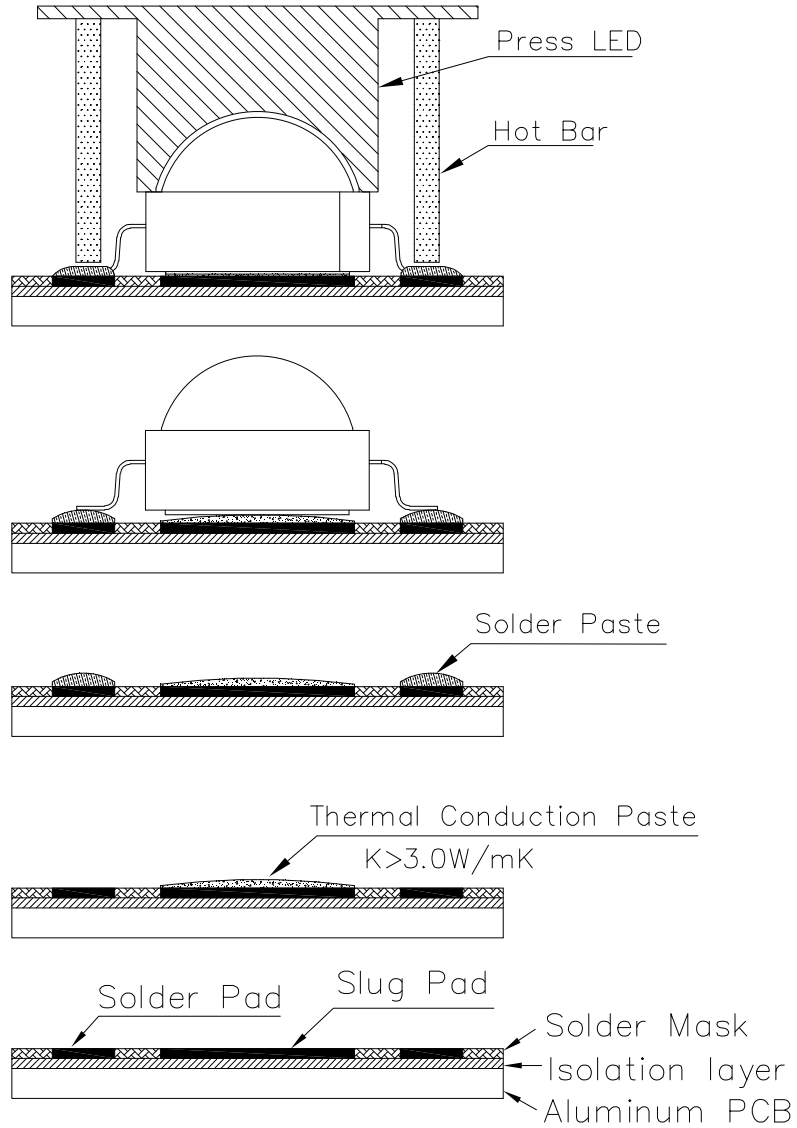
AAD1-9090SY9ZC/2
Recommended Soldering Pattern
 (Units : mm; Tolerance: ± 0.1)



Tape Specifications
 (Units : mm)

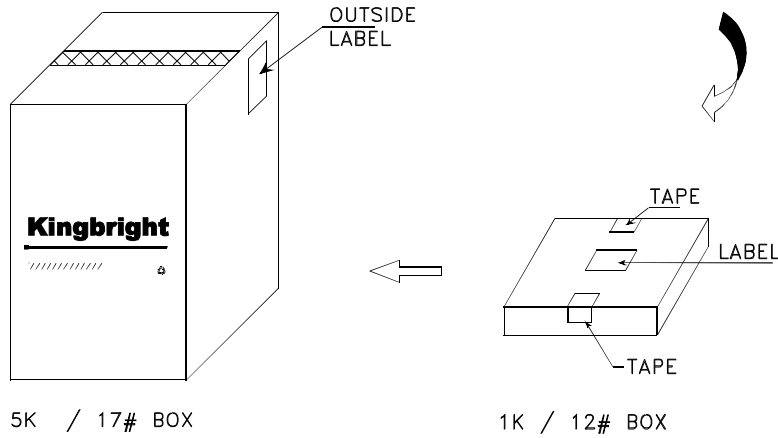
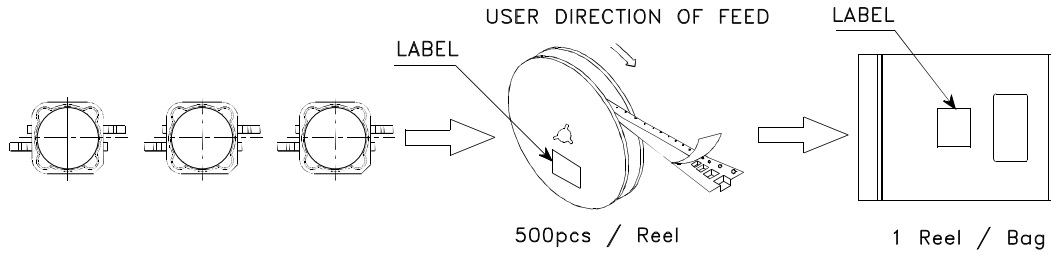



AAD1-9090SY9ZC/2
Recommended Solder Steps



PACKING & LABEL SPECIFICATIONS

AAD1-9090SY9ZC/2



Kingbright	
P/NO: AAD1-9090xxx	
QTY: 500 pcs	Q.C. Q C XX XX XXXX PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
 XXXXXXXXXXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	