

PRELIMINARY SPEC

Part Number: AAD1-9090SY28ZC-S

Super Bright Yellow

Features

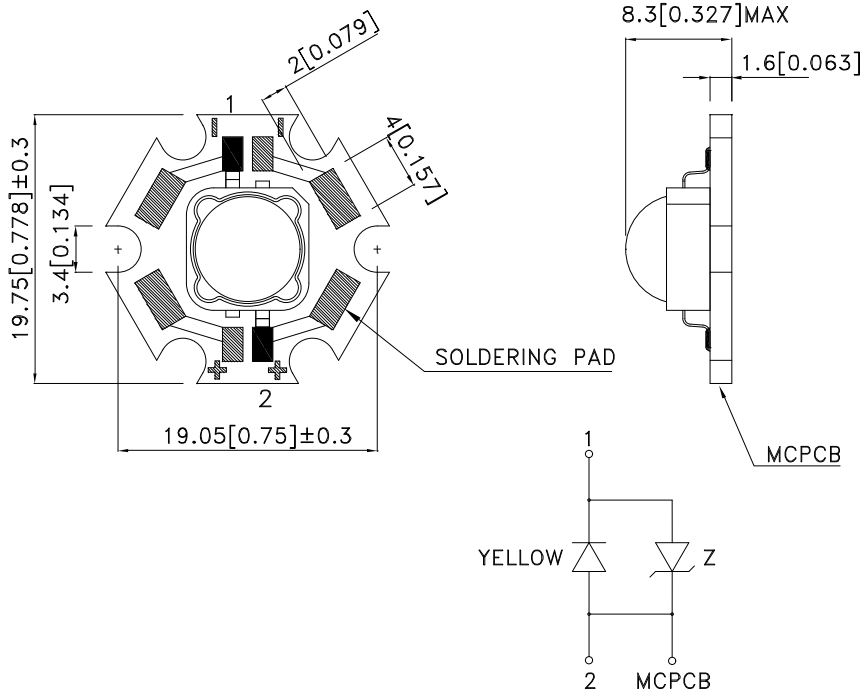
- SUPER HIGH FLUX OUTPUT AND HIGH LUMINANCE.
- DESIGNED FOR HIGH CURRENT OPERATION.
- LOW THERMAL RESISTANCE.
- LOW VOLTAGE DC OPERATED.
- SUPERIOR ESD PROTECTION.
- PACKAGE: 500PCS/REEL.
- NOT REFLOW COMPATIBLE.
- THE COMPONENT IS INTERNALLY PROTECTED WITH SILICONE GEL.
- RoHS COMPLIANT.



Applications

- traffic signaling.
- backlighting (illuminated advertising , general lighting).
- interior and exterior automotive lighting.
- substitution of micro incandescent lamps.
- portable light source (e.g. bicycle flashlight).
- signal and symbol luminaire for orientation.
- marker lights (e.g. steps, exit ways, etc).
- decorative and entertainment lighting.
- indoor and outdoor commercial and residential architectural lighting.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.
3. Specifications are subject to change without notice.



Selection Guide

Part No.	Dice	Lens Type	luminous Intensity [2] Iv (cd)@ 350 mA		Φv (lm) [2] @ 350 mA		Viewing Angle [1]
			Min.	Typ.	Min.	Typ.	2 θ 1/2
AAD1-9090SY28ZC-S	SUPER BRIGHT YELLOW (InGaAlP)	WATER CLEAR	8	11.5	25	32	100 °

Notes:

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

Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power dissipation	Pt	0.9	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	350	mA
Peak Forward Current [2]	IFM	500	mA
Thermal resistance [1]	Rth j-slug	12	°C/W
Electrostatic Discharge Threshold (HBM)		8000	V

Notes:

- Metal Core PCB is mounted on the heat Fins.
- 1/10 Duty Cycle, 0.1ms Pulse Width.

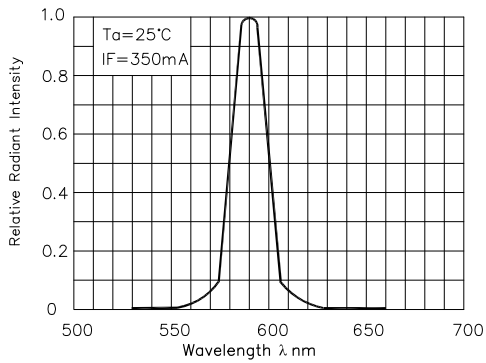
Electrical / Optical Characteristics at TA=25°C

Parameter	Symbol	Value	Unit
Wavelength at peak emission IF=350mA [Typ.]	λ peak	590	nm
Dominant Wavelength IF=350mA [Typ.]	λ dom [1]	588	nm
Spectral bandwidth at 50%Φ REL MAX IF=350mA [Typ.]	Δλ	20	nm
Forward Voltage IF=350mA [Min.]	VF [2]	2.0	V
Forward Voltage IF=350mA [Typ.]		2.5	
Forward Voltage IF=350mA [Max.]		3.0	
Temperature coefficient of λ peak IF=350mA, -10 ° C ≤ T ≤ 100 ° C [Typ.]	TC λ peak	0.09	nm/° C
Temperature coefficient of λ dom IF=350mA, -10 ° C ≤ T ≤ 100 ° C [Typ.]	TC λ dom	0.06	nm/° C
Temperature coefficient of VF IF=350mA, -10 ° C ≤ T ≤ 100 ° C [Typ.]	TCv	-3.2	mV/° C

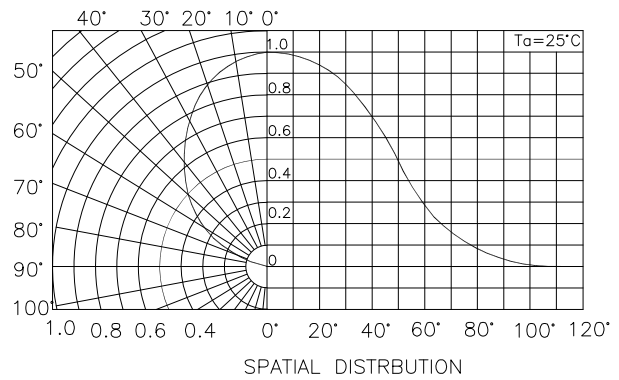
Notes:

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

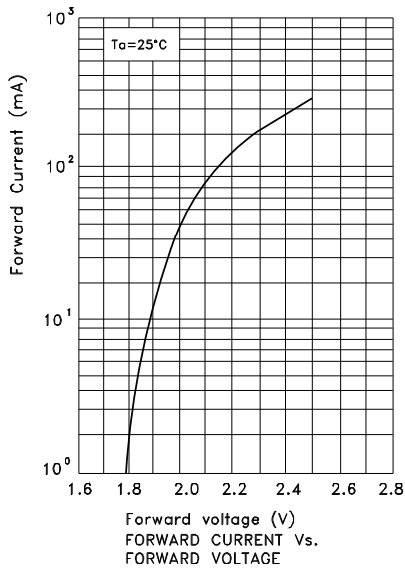
AAD1-9090SY28ZC-STAR



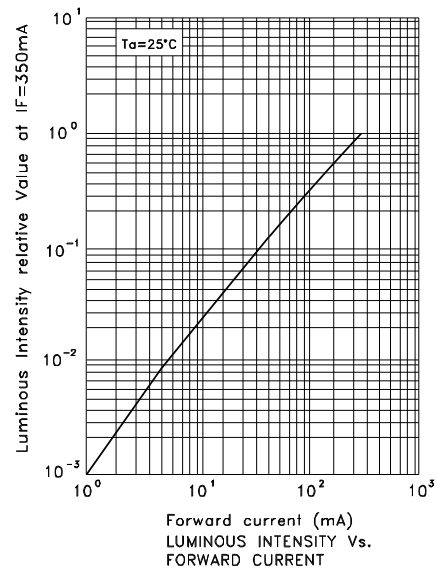
RELATIVE INTENSITY Vs. WAVELENGTH



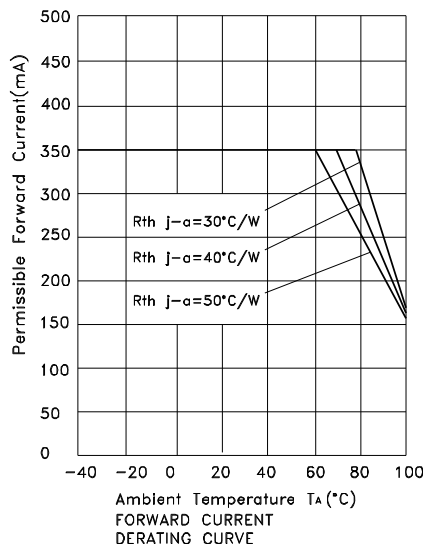
SPATIAL DISTRIBUTION



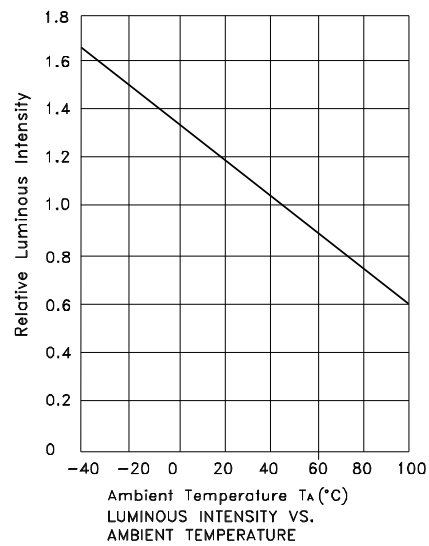
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



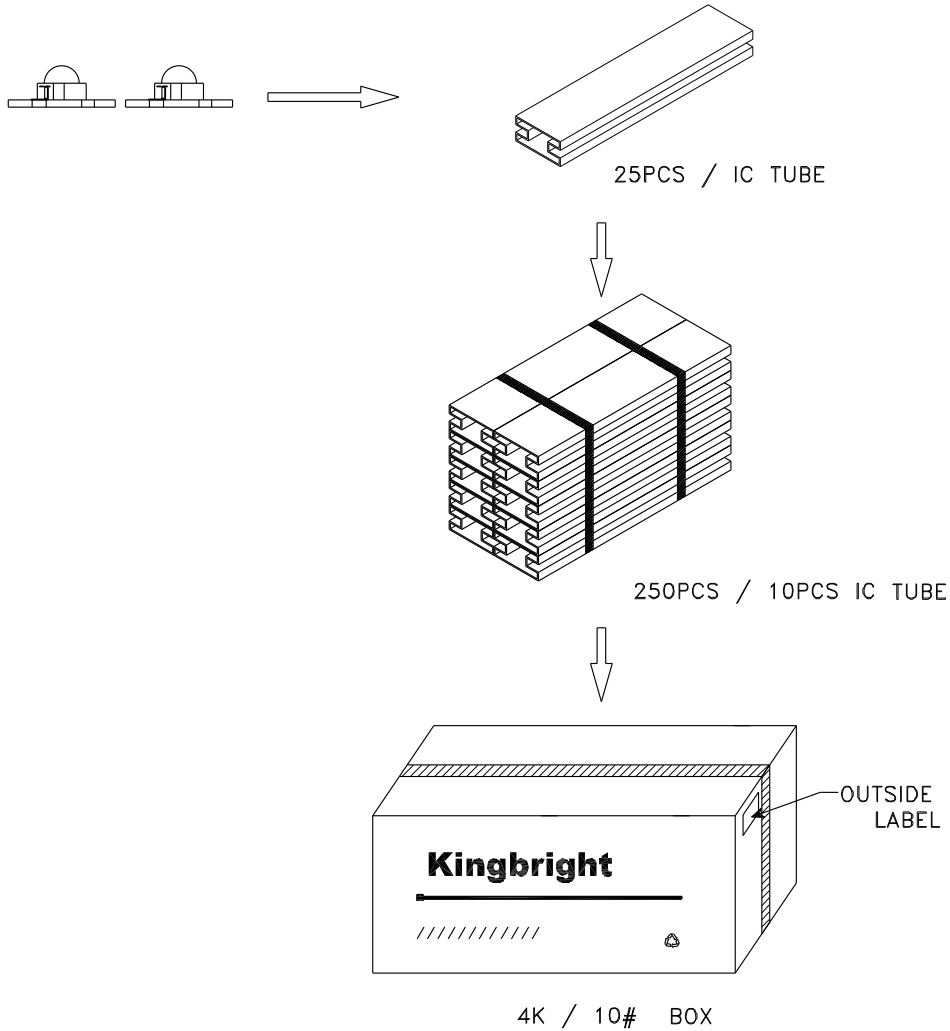
FORWARD CURRENT DERATING CURVE




LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

PACKING & LABEL SPECIFICATIONS

AAD1-9090SY28ZC-S



Kingbright			
Q.C.	<table border="1"> <tr> <td style="text-align: center;">QC</td> </tr> <tr> <td style="text-align: center;">XX XX XXXX PASSED</td> </tr> </table>	QC	XX XX XXXX PASSED
QC			
XX XX XXXX PASSED			
TYPE NO :AAD1-9090XXX-STAR			
QUANTITY : 250 pcs			
S/N : XXX	CODE: XXX		
LOT NO : 			
XX-XXXX	RoHS Compliant		