



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



PRELIMINARY SPEC

Part Number: AAD1-9090SY28ZC-S

Super Bright Yellow

Features

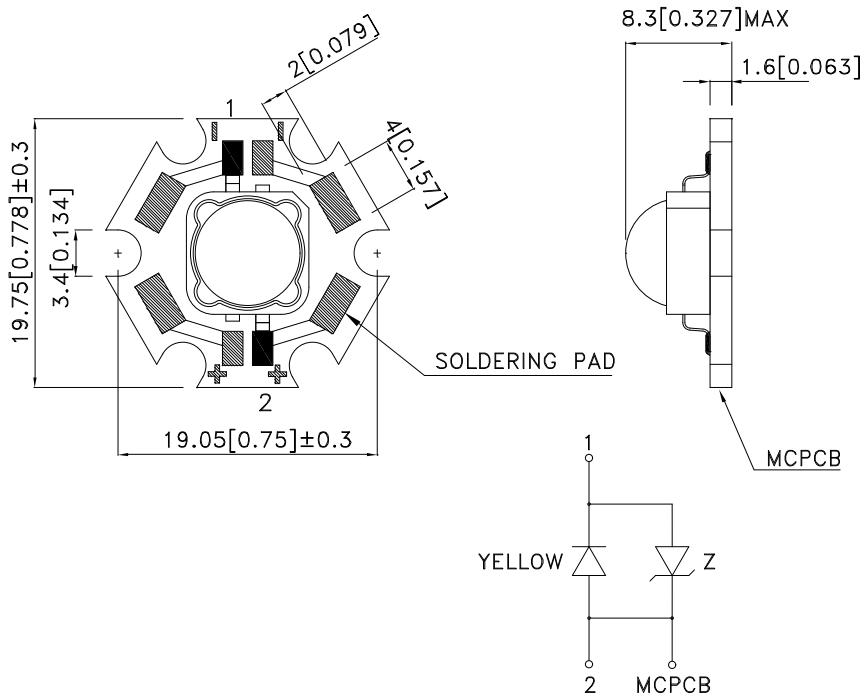
- SUPER HIGH FLUX OUTPUT AND HIGH LUMINANCE.
- DESIGNED FOR HIGH CURRENT OPERATION.
- LOW THERMAL RESISTANCE.
- LOW VOLTAGE DC OPERATED.
- SUPERIOR ESD PROTECTION.
- PACKAGE: 500PCS/REEL.
- NOT REFLOW COMPATIBLE.
- THE COMPONENT IS INTERNALLY PROTECTED WITH SILICONE GEL.
- RoHS COMPLIANT.



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.

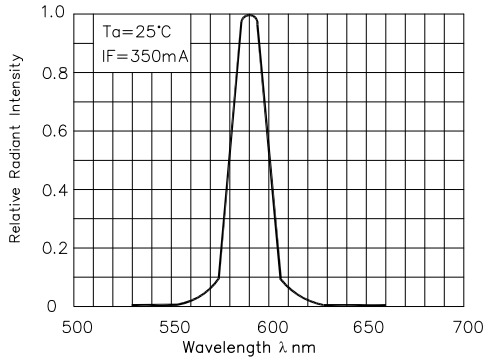
Electrical / Optical Characteristics at TA=25°C

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

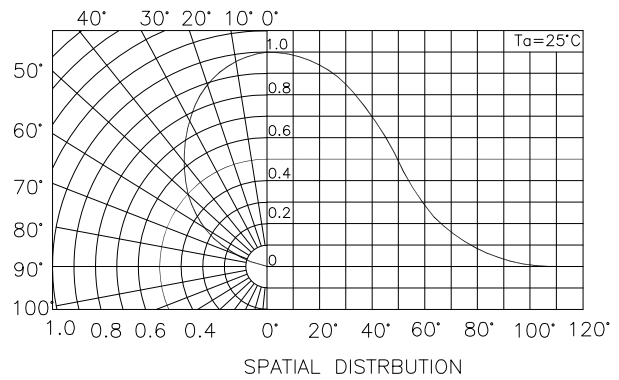
Notes:

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

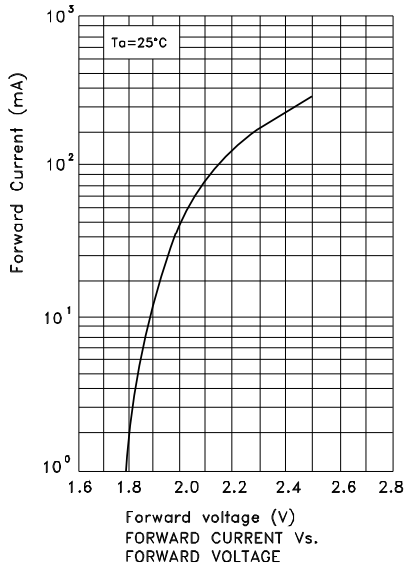
AAD1-9090SY28ZC-STAR



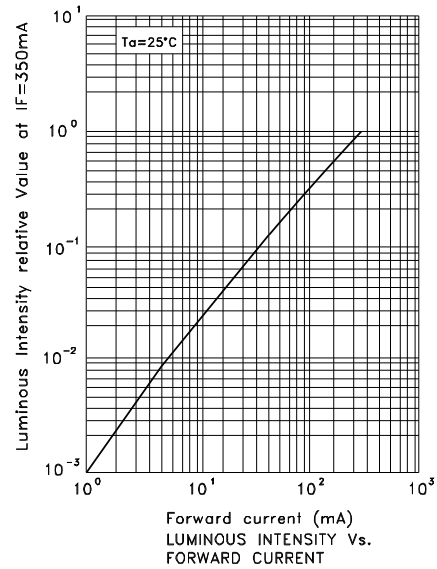
RELATIVE INTENSITY Vs. WAVELENGTH



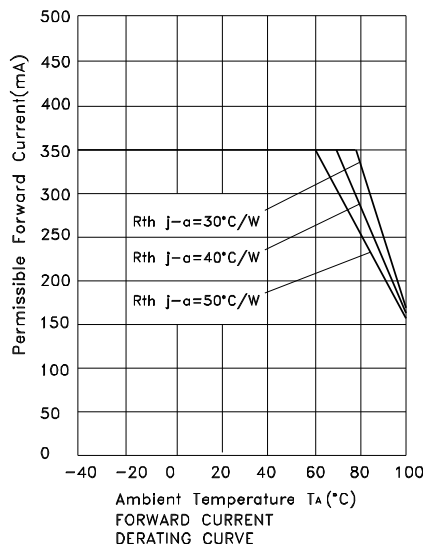
SPATIAL DISTRIBUTION



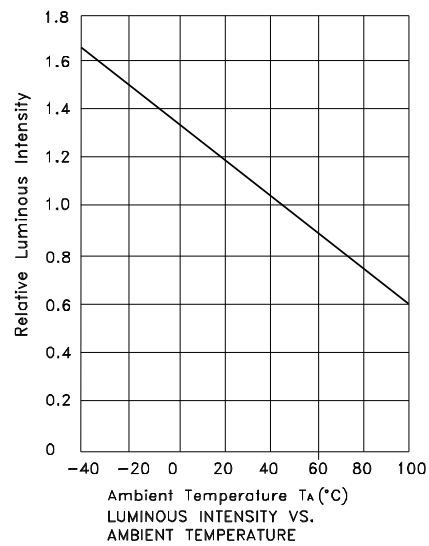
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



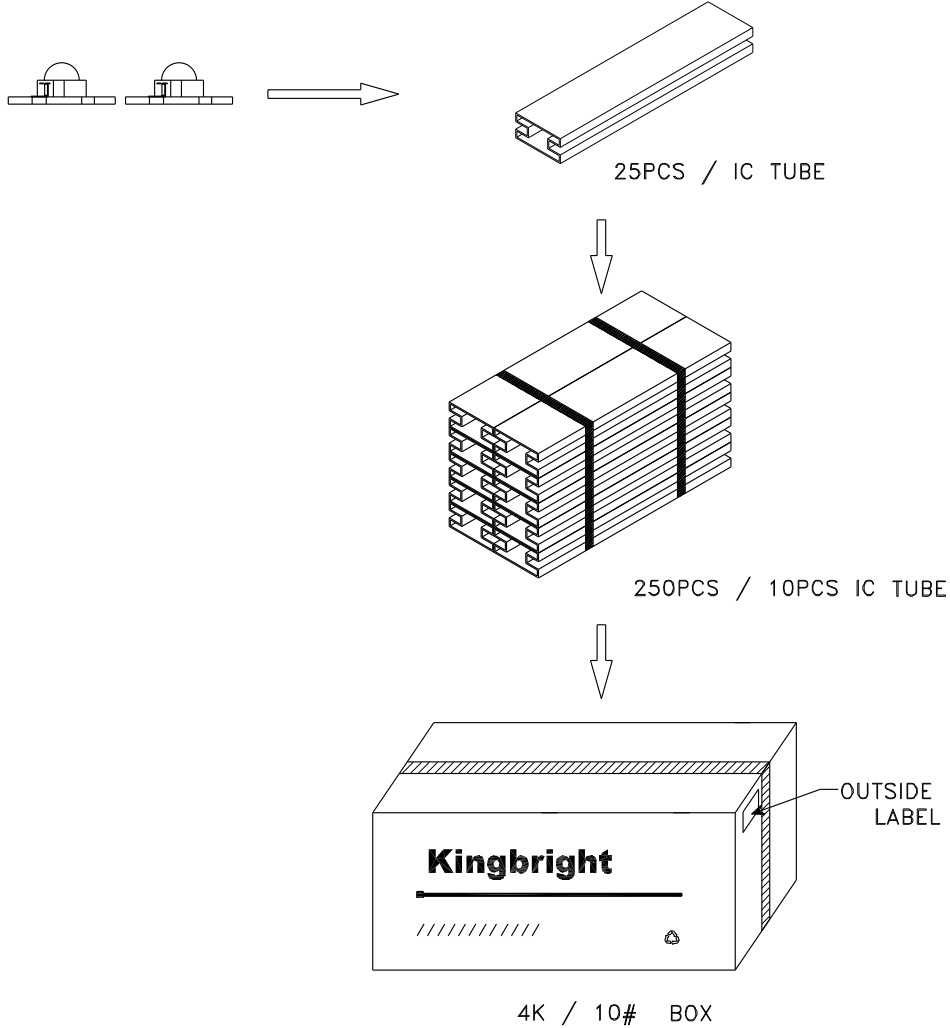
FORWARD CURRENT DERATING CURVE




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		