



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!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

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



PRELIMINARY SPEC

Part Number: AAD1-9090SE9ZC/2-S

Reddish-Orange

Features

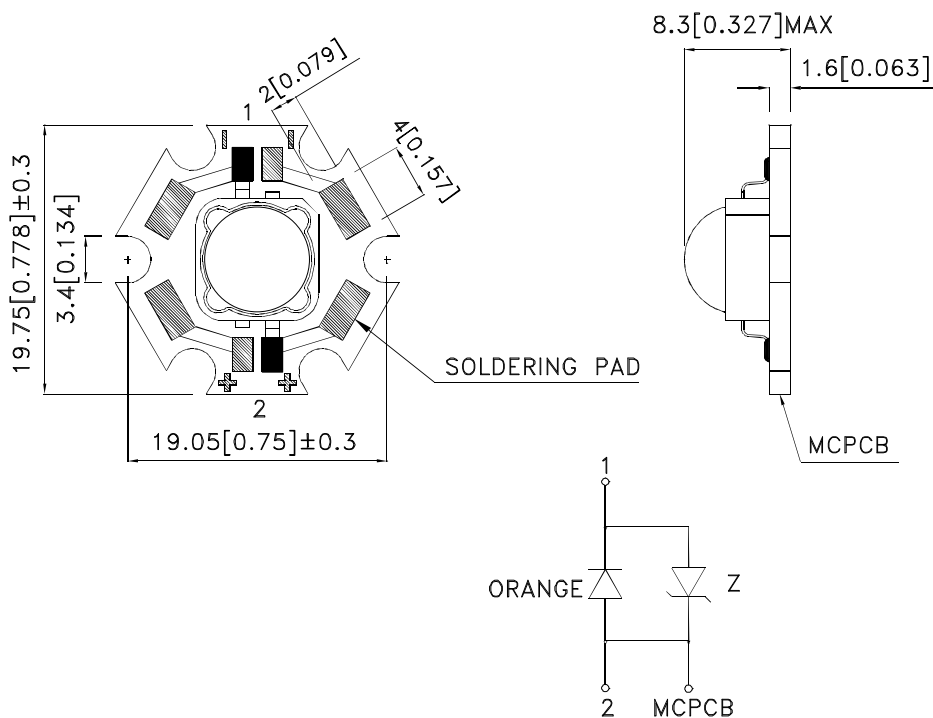
- SUPER HIGH FLUX OUTPUT AND HIGH LUMINANCE.
- DESIGNED FOR HIGH CURRENT OPERATION.
- LOW THERMAL RESISTANCE.
- LOW VOLTAGE DC OPERATED.
- SUPERIOR ESD PROTECTION.
- NOT REFLOW COMPATIBLE.
- THE COMPONENT IS INTERNALLY PROTECTED WITH SILICONE GEL.
- RoHS COMPLIANT.



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 $\pm 0.25(0.01)$ unless otherwise noted.
3. Specifications are subject to change without notice.



Selection Guide

Part No.	Dice	Lens Type	luminous Intensity [2] Iv (cd)@ 500mA		Φv (lm) [2] @ 500mA		Viewing Angle [1]
			Min.	Typ.	Min.	Typ.	2θ1/2
AAD1-9090SE9ZC/2-S	REDDISH-ORANGE (AlGaInP)	WATER CLEAR	12	17	35	42	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	1.62	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

Notes:

1. Metal Core PCB is mounted on the heat Fins.
2. 1/10 Duty Cycle, 0.1ms Pulse Width.

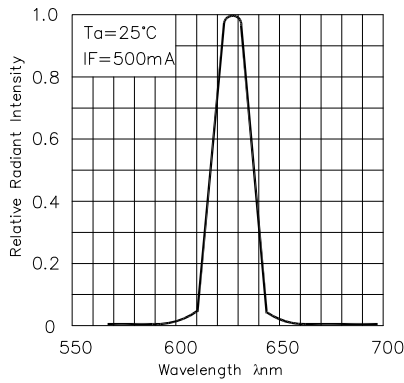
Electrical / Optical Characteristics at TA=25°C

Parameter	Symbol	Value	Unit
Wavelength at peak emission IF=500mA [Typ.]	λpeak	628	nm
Dominant Wavelength IF=500mA [Typ.]	λ dom [1]	623	nm
Spectral bandwidth at 50%ΦREL MAX IF=500mA [Typ.]	Δλ	22	nm
Forward Voltage IF=500mA [Min.]	VF [2]	2.4	V
Forward Voltage IF=500mA [Typ.]		3.0	
Forward Voltage IF=500mA [Max.]		3.6	
Temperature coefficient of λpeak IF=500mA, -10°C ≤ T ≤ 100°C [Typ.]	TCλpeak	0.08	nm/°C
Temperature coefficient of λdom IF=500mA, -10°C ≤ T ≤ 100°C [Typ.]	TCλdom	0.03	nm/°C
Temperature coefficient of VF IF=500mA, -10°C ≤ T ≤ 100°C [Typ.]	TCv	-2.8	mV/°C

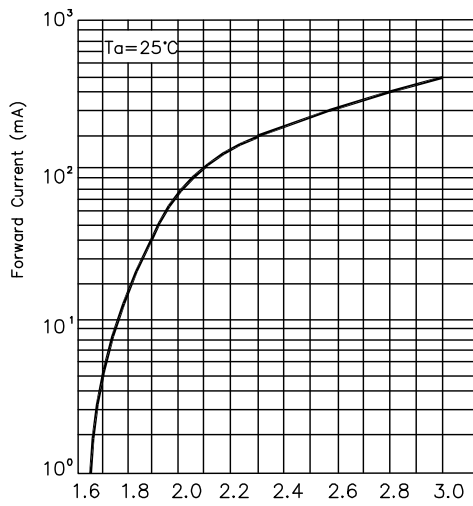
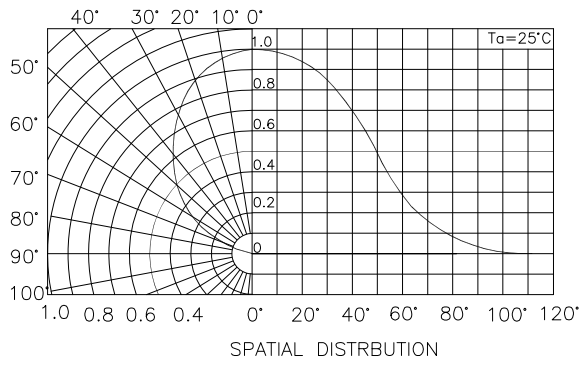
Notes:

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

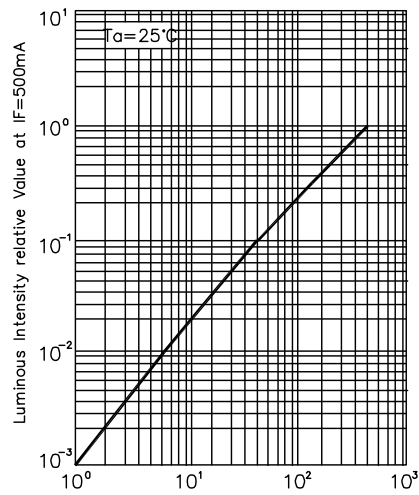
AAD1-9090SE9ZC/2-S



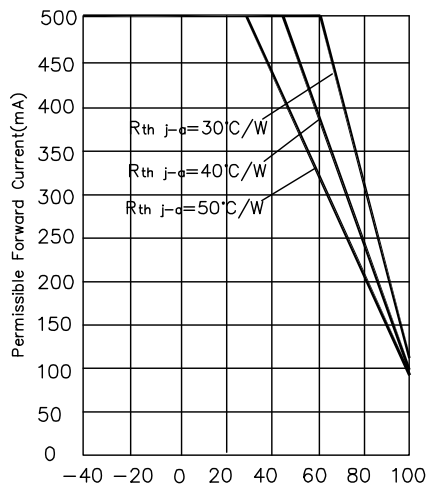
RELATIVE INTENSITY vs. WAVELENGTH



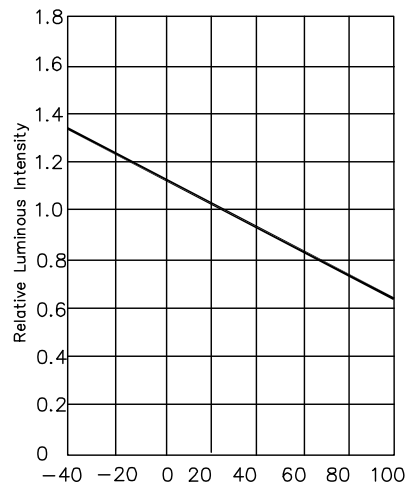
FORWARD CURRENT vs. FORWARD VOLTAGE



LUMINOUS INTENSITY vs. FORWARD CURRENT



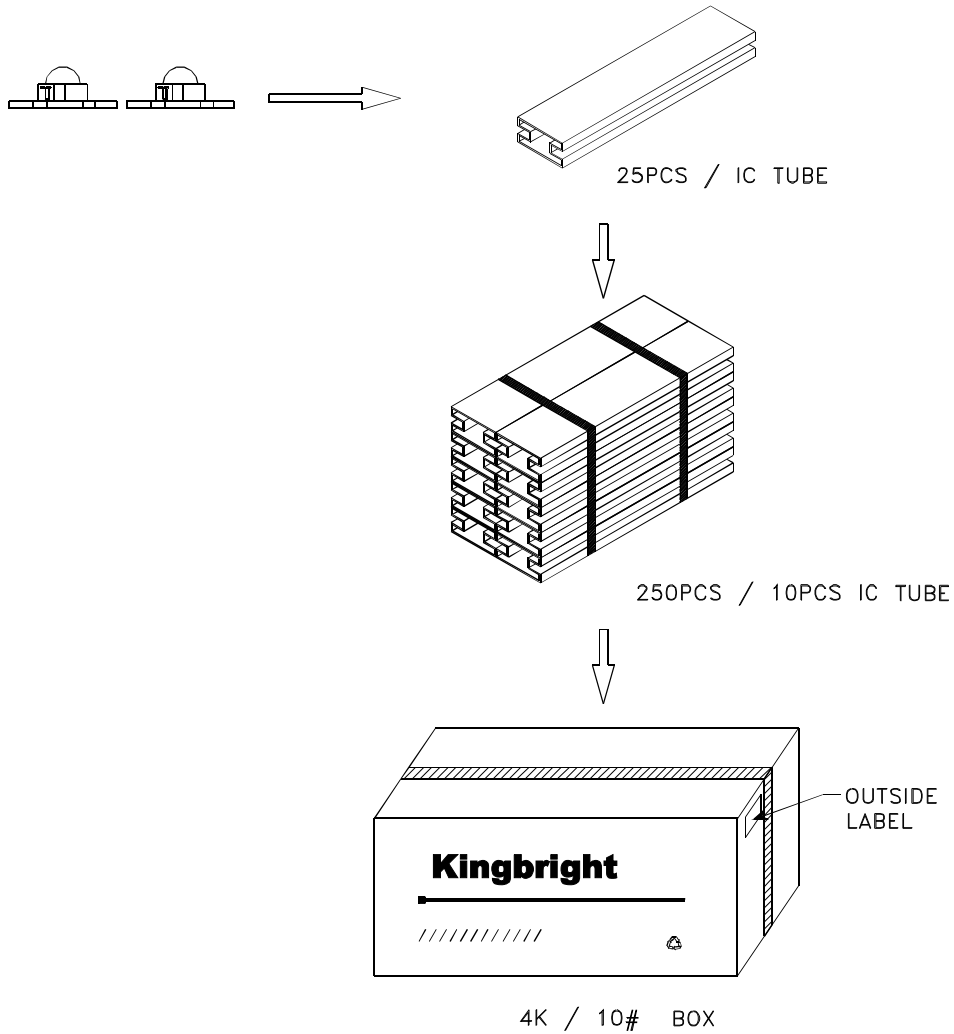
FORWARD CURRENT DERATING CURVE




FORWARD CURRENT DERATING CURVE

PACKING & LABEL SPECIFICATIONS

AAD1-9090SE9ZC/2-S



Kingbright	
P/NO: AAD1-9090XXX-STAR	
QTY: 250 pcs	Q.C. Q C XX XX XXXX PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
 xxxxxxxxxxxxxxxxxxxxxxxxxxxx	
RoHS Compliant	