

Part Number: AAD1-9090QW11ZC/3-S

White



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Features

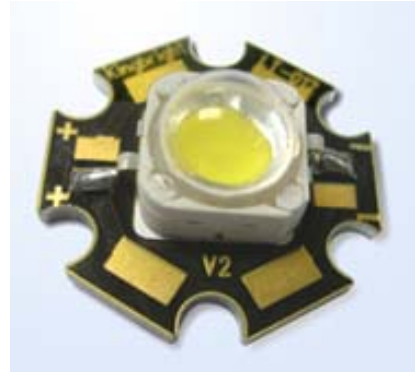
- Super high flux output and high luminance.
- Designed for high current operation.
- Low thermal resistance.
- Low voltage DC operated.
- Superior ESD protection.
- Not reflow compatible.
- The component is internally protected with silicone gel.
- RoHS compliant.

Application Note

Static electricity and surge damage the LEDs.

It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

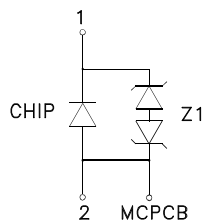
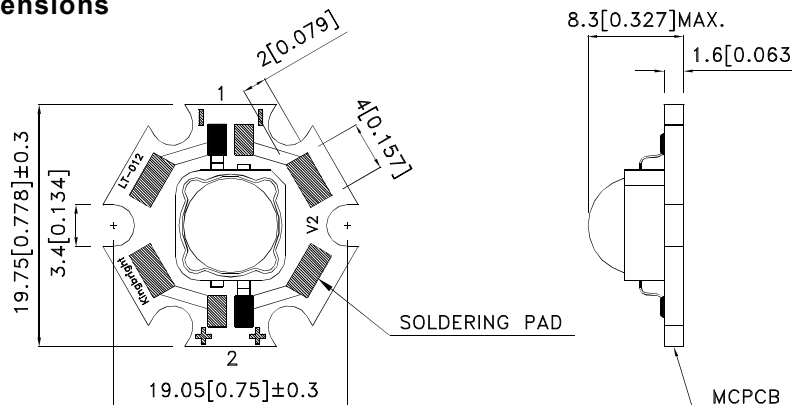
All devices, equipment and machinery must be electrically grounded.



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. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.



Selection Guide

Part No.	Dice	Lens Type	luminous Intensity [2] Iv (cd)@ 700mA		Φv (lm) [2] @ 700mA		Viewing Angle [1]
			Min.	Typ.	Min.	Typ.	2θ1/2
AAD1-9090QW11ZC/3-S	White (AlGaInN)	WATER CLEAR	24	48	100	120	100°

Notes:

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

Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power dissipation	Pd	3	W
Junction temperature	TJ	110	°C
Operating Temperature	Top	-40 To +100	°C
Storage Temperature	Tstg	-40 To +100	°C
Reverse Voltage	VR	5	V
DC Forward Current [1]	IF	700	mA
Peak Forward Current [2]	IFM	1000	mA
Thermal resistance [1]	Rth j-slug	11	°C/W
Electrostatic Discharge Threshold (HBM)		8000	V

Notes:

1. Results from mounting on MCPCB.
2. 1/10 Duty Cycle, 0.1ms Pulse Width.

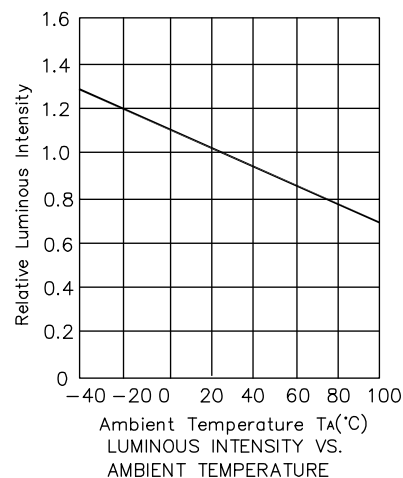
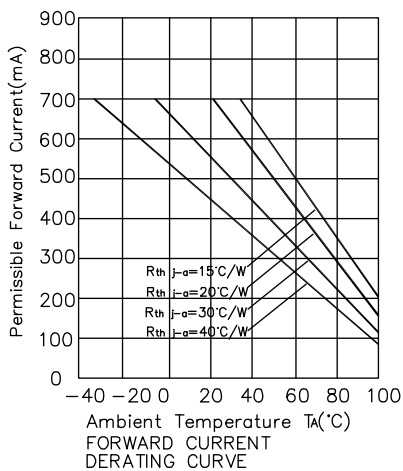
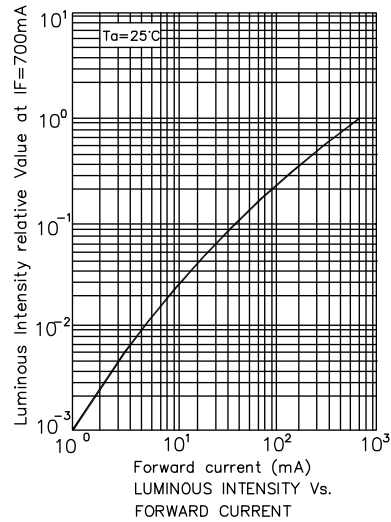
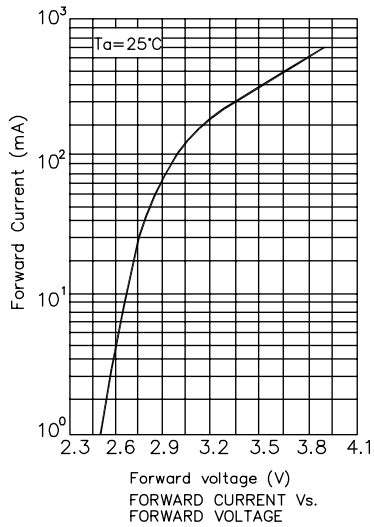
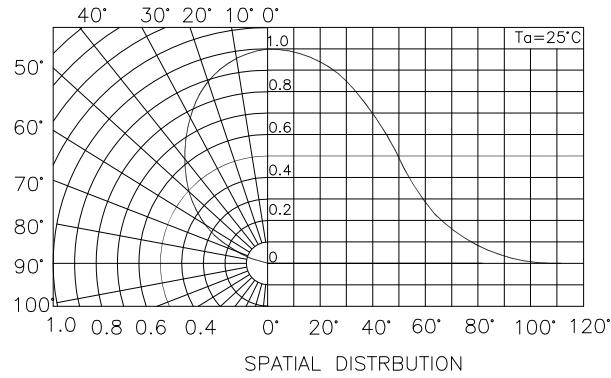
Electrical / Optical Characteristics at TA=25°C

Parameter	Symbol	Value	Unit
Chromaticity coordinate x acc.to CIE1931 IF=700mA [Typ.]	X [1]	0.31	-
Chromaticity coordinate y acc.to CIE1931 IF=700mA [Typ.]	Y [1]	0.31	-
Reverse Current VR=5V [Max.]	IR	10	uA
Forward Voltage IF=700mA [Min.]	VF [2]	3.5	V
Forward Voltage IF=700mA [Typ.]		3.9	
Forward Voltage IF=700mA [Max.]		4.3	
Temperature coefficient of x IF=700mA, -10°C ≤ T ≤ 100°C [Typ.]	TCx	-0.2	10 ⁻³ /°C
Temperature coefficient of y IF=700mA, -10°C ≤ T ≤ 100°C [Typ.]	TCy	-0.1	10 ⁻³ /°C
Temperature coefficient of VF IF=700mA, -10°C ≤ T ≤ 100°C [Typ.]	TCv	-4.3	mV/°C

Notes:

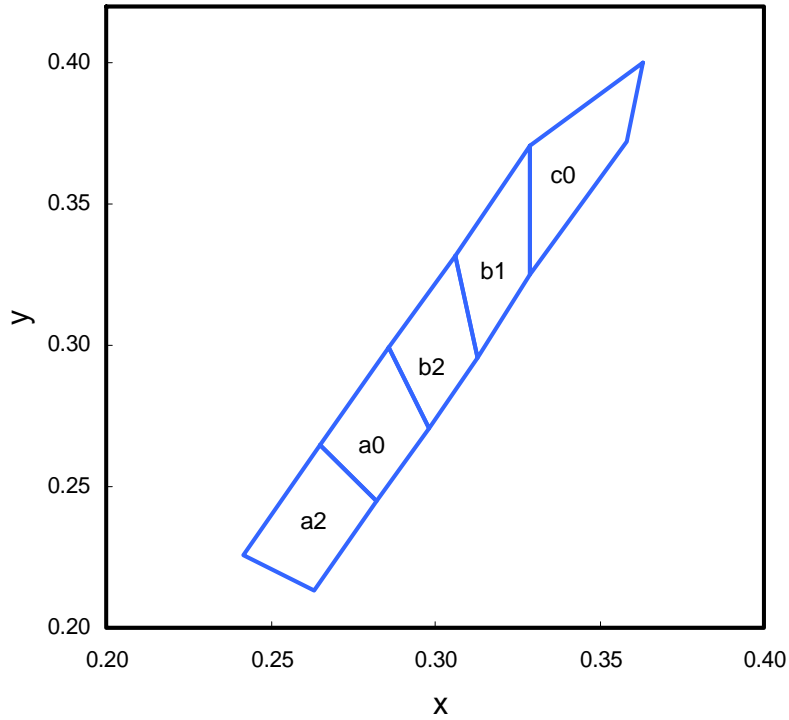
1. Measurement tolerance of the chromaticity coordinates is ±0.02
2. Forward Voltage: +/-0.1V.

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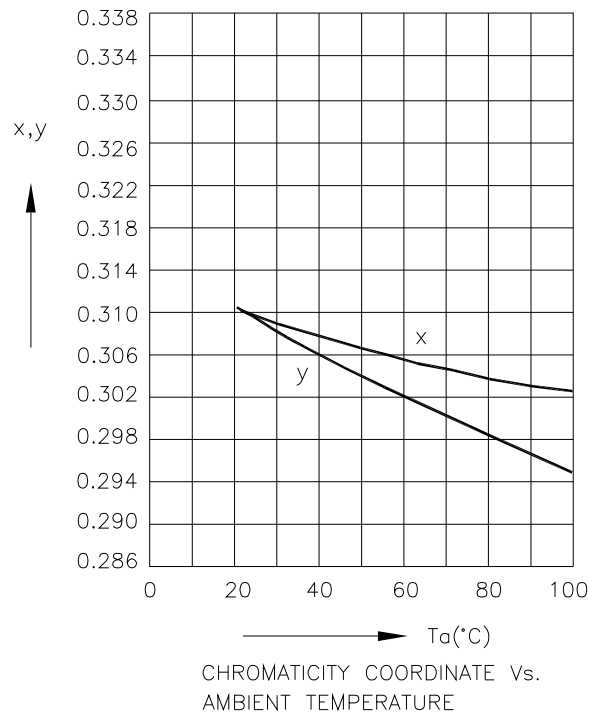
White CIE



	x	y		x	y		x	y
a2	0.263	0.213	a0	0.282	0.245	b2	0.298	0.271
	0.282	0.245		0.298	0.271		0.313	0.296
	0.265	0.265		0.286	0.299		0.306	0.332
	0.242	0.226		0.265	0.265		0.286	0.299
b1	0.313	0.296	c0	0.329	0.325			
	0.329	0.325		0.358	0.372			
	0.329	0.371		0.363	0.400			
	0.306	0.332		0.329	0.371			

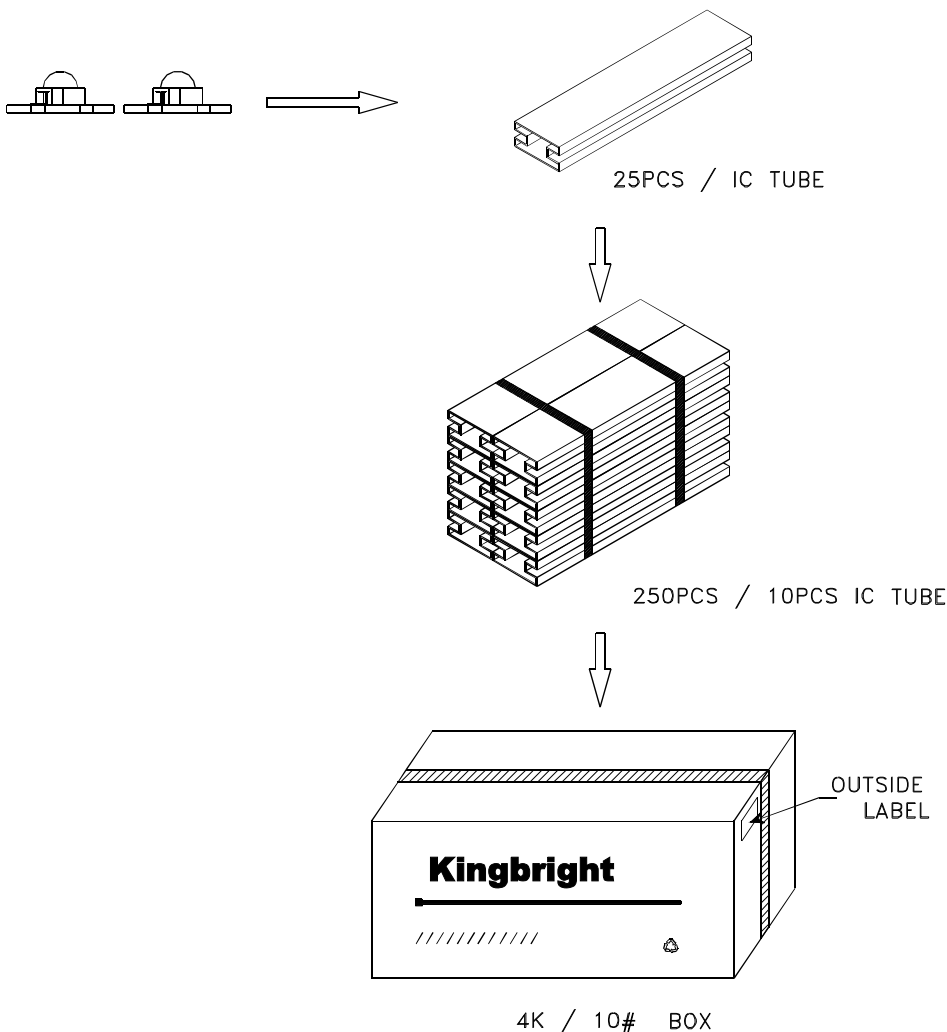
Notes:
 Shipment may contain more than one chromaticity regions.
 Orders for single chromaticity region are generally not accepted.
 Measurement tolerance of the chromaticity coordinates is ± 0.02 .


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PACKING & LABEL SPECIFICATIONS

AAD1-9090QW11ZC/3-S



<h1>Kingbright</h1>	
P/NO: AAD1-9090XXX	
QTY: 250 pcs	Q.C. Q C XX XX XXXX PASSED
S/N: XXXX	
CODE: XX	
LOT NO:  XXXXXXXXXXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	