XPower

PRELIMINARY SPEC

Part Number: AAD1-9090SE9ZC/2-S

Reddish-Orange

Features

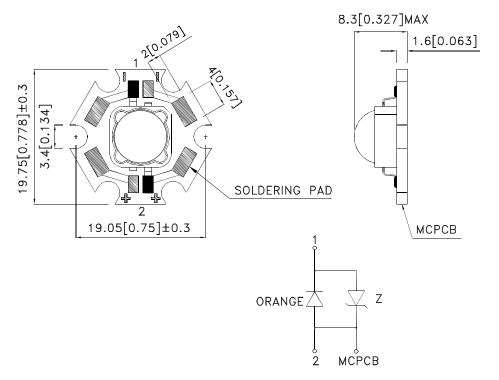
- SUPER HIGH FLUX OUTPUT AND HIGH LUMINANCE.
- DESIGNED FOR HIGH CURRENT OPERATION.
- LOW THERMAL RESISTANCE.
- LOW VOLTAGE DC OPERATED.
- SUPERIOR ESD PROTECTION.
- NOT REFLOW COMPATIBLE.
- •THE COMPONENT IS INTERNALLY PROTECTED WITH SILICONE GEL.
- RoHS COMPLIANT.



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:

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





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Selection Guide

Part No.	Dice	Lens Type	luminous Intensity [2] Iv (cd)@ 500mA		Фv (lm) [2] @ 500mA		Viewing Angle [1]
			Min.	Тур.	Min.	Тур.	201/2
AAD1-9090SE9ZC/2-S	REDDISH-ORANGE (AlGalnP)	WATER CLEAR	12	17	35	42	100°

- 1. $\theta 1/2$ 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	Тор	-40 To +100	°C	
Storage Temperature	Tstg	-40 To +100	°C	
DC Forward Current [1]	lF	500	mA	
Peak Forward Current [2]	lғм	700	mA	
Thermal resistance [1]	Rth j-slug	12	°C/W	
Electrostatic Discharge Threshold (HBM)	8000	V		

- 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

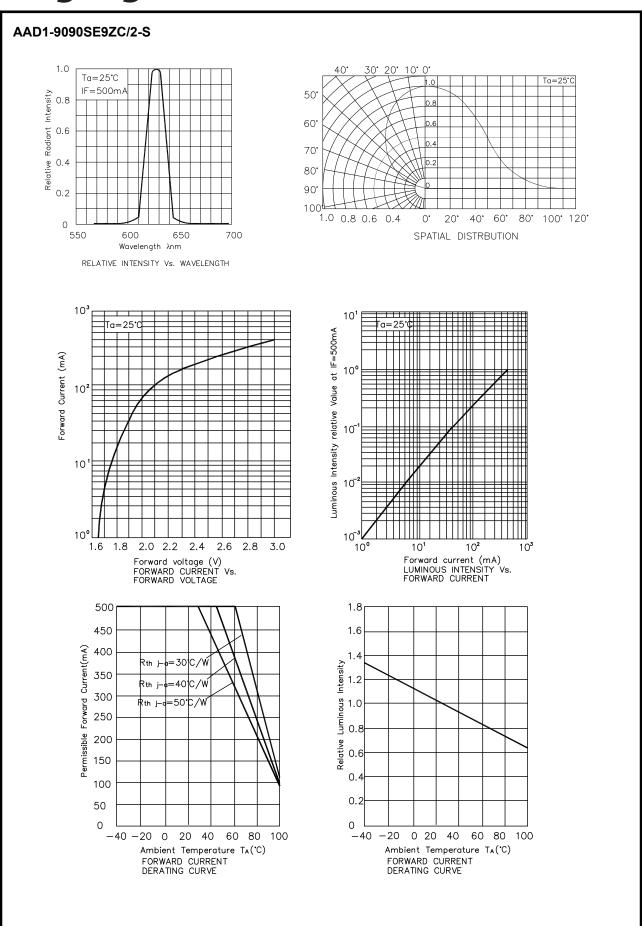
Parameter	Symbol	Value	Unit	
Wavelength at peak emission Ir=500mA [Typ.]	λpeak	628	nm	
Dominant Wavelength Ir=500mA [Typ.]	λ dom [1]	623	nm	
Spectral bandwidth at 50%ΦREL MAX IF=500mA [Typ.]	Δλ	22	nm	
Forward Voltage IF=500mA [Min.]		2.4		
Forward Voltage IF=500mA [Typ.]	VF [2]	3.0	V	
Forward Voltage IF=500mA [Max.]		3.6		
Temperature coefficient of λ peak IF=500mA, -10°C \leq T \leq 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.

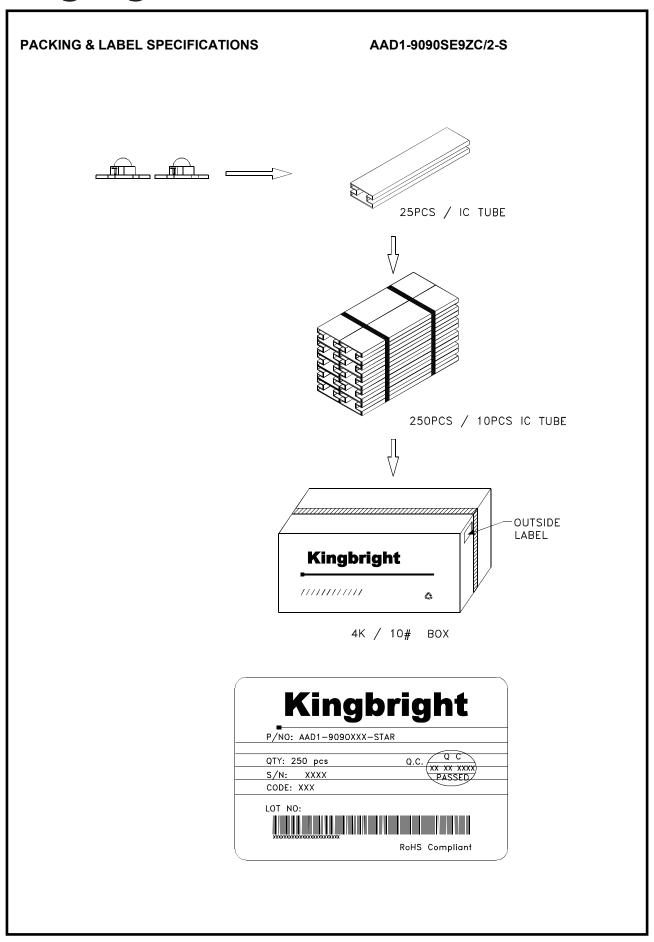
2. Forward Voltage: +/-0.1V.

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