

PRELIMINARY SPEC

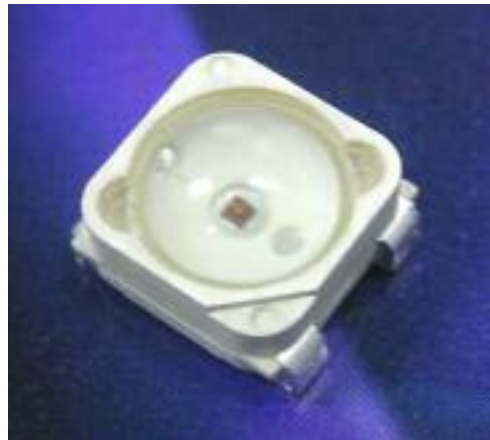
XPower

Part Number : KAD-1010SEC28

Reddish-Orange

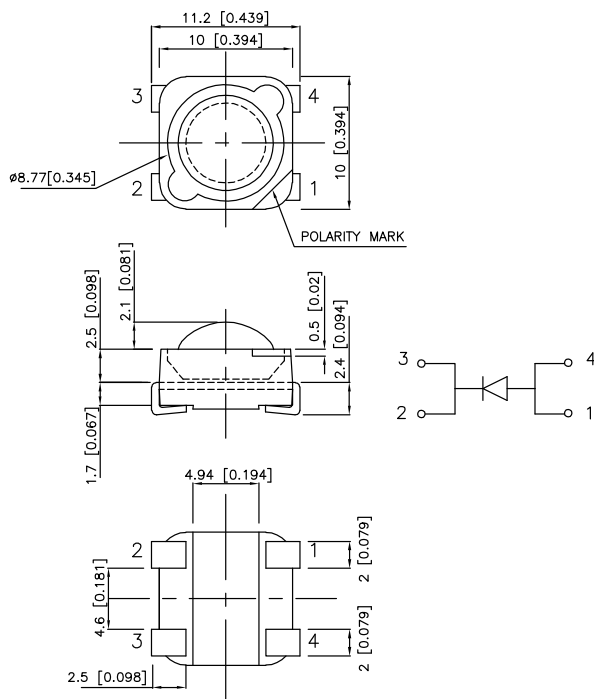
Features

- *P-LCC-4 PACKAGE.
- *SINGLE COLOR.
- *HIGH LUMINANCE.
- *HIGH POWER, OPERATING CURRENT @350mA.
- *SUITABLE FOR ALL SMT ASSEMBLY METHODS.
- *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



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 Iv(cd) @350mA[1]		Viewing Angle [2]
			Min.	Typ.	2θ1/2
KAD-1010SEC28	Reddish-Orange (InGaAlP)	WATER CLEAR	28	30	120°

Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power dissipation	Pt	1.2	W
Reverse Voltage	VR	5	V
Operating Temperature	Top	-40 To +85	°C
Storage Temperature	Tstg	-40 To +85	°C
DC Forward Current [1]	IF	350	mA
Peak Forward Current [3]	IFM	500	mA
Thermal resistance [1]	Rth	60	°C/W

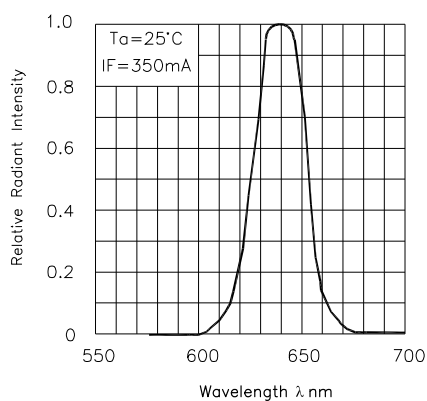
Notes:

- Results from mounting on PC board FR4(pad size $\geq 100\text{mm}^2$), mounted on pc board-metal core PCB is recommend for lowest thermal resistance.
- 2θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
- 1/10 Duty Cycle, 0.1ms Pulse Width.

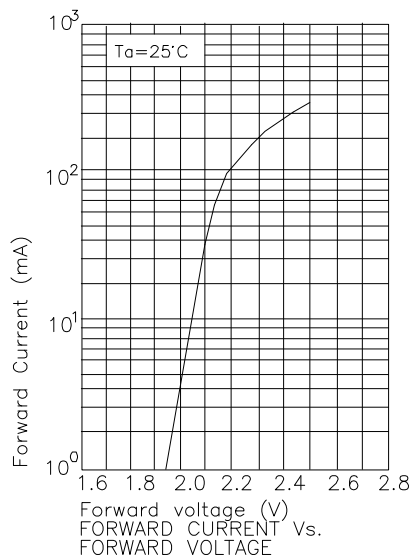
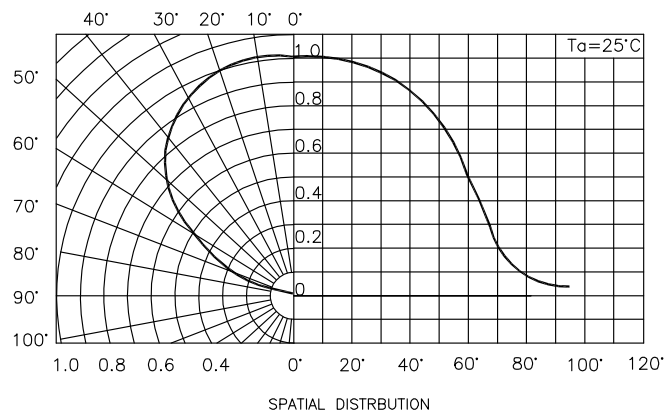
Electrical / Optical Characteristics at TA=25°C

Parameter	Symbol	Value	Unit
Wavelength at peak emission IF=350mA [Typ.]	λ_{peak}	640	nm
Dominant Wavelength IF=350mA [Typ.]	λ_{dom}	625	nm
Spectral bandwidth at 50%ΦREL MAX IF=350mA [Typ.]	$\Delta\lambda$	30	nm
Viewing angle at 50%Φv	θ	120	°
Forward Voltage IF=350mA [Typ.]	VF	2.5	V
Reverse Current (VR=5V) [Typ.]	IR	10	μA
Temperature coefficient of λ_{peak} IF=350mA, -10°C ≤ T ≤ 100°C [Typ.]	TC λ_{peak}	0.14	nm/°C
Temperature coefficient of λ_{dom} IF=350mA, -10°C ≤ T ≤ 100°C [Typ.]	TC λ_{dom}	0.12	nm/°C
Temperature coefficient of VF IF=350mA, -10°C ≤ T ≤ 100°C [Typ.]	TCv	-3.0	mV/°C

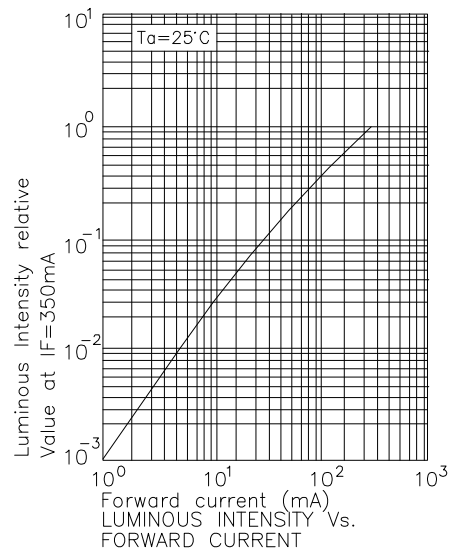
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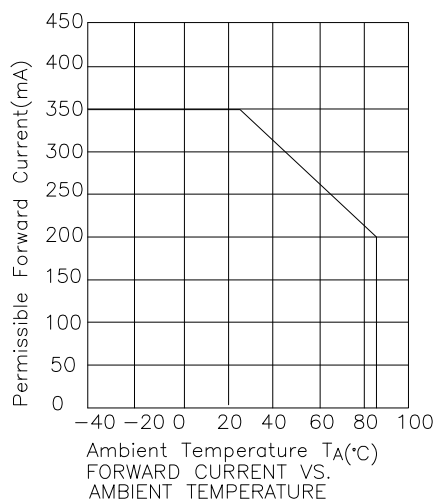
RELATIVE INTENSITY VS. WAVELENGTH



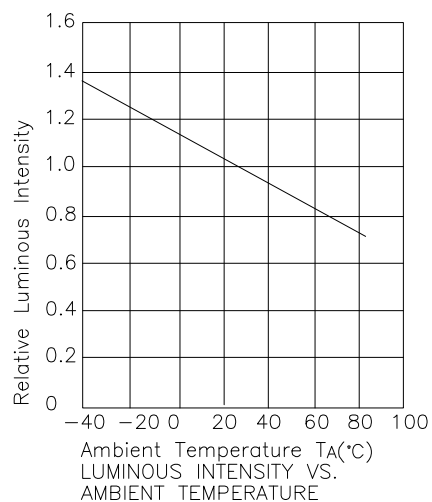
FORWARD CURRENT VS. FORWARD VOLTAGE



LUMINOUS INTENSITY VS. FORWARD CURRENT



FORWARD CURRENT VS. AMBIENT TEMPERATURE



LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

