

PRELIMINARY SPEC

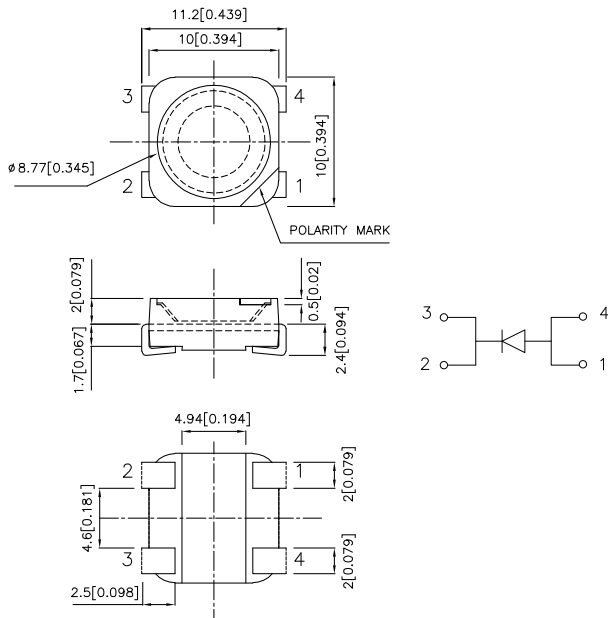
PATENT PENDING

## XPower

Part Number : AA1011SYC28 SUPER BRIGHT YELLOW

### Features

- \*P-LCC-4 PACKAGE.
- \*SINGLE COLOR.
- \*HIGH LUMINANCE.
- \*HIGH POWER, OPERATING CURRENT @350mA.
- \*SUITABLE FOR ALL SMT ASSEMBLY METHODS.
- \*PACKAGE : 1000PCS / REEL.
- \*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)@ 350 mA [1]		Viewing Angle [2]
			Min.	Typ.	2θ1/2
AA1011SYC28	SUPER BRIGHT YELLOW (InGaAlP)	WATER CLEAR	14	19	30°

## 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	80	°C/W

### Notes:

1.Results from mounting on PC board FR4(pad size≥100mm<sup>2</sup> per pad), mounted on pc board-metal core PCB is recommend for lowest thermal Resistance.

2.θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

3.1/10 Duty Cycle, 0.1ms Pulse Width.

## Electrical / Optical Characteristics at TA=25°C

Parameter	Symbol	Value	Unit
Wavelength at peak emission IF=350mA [typ.]	λpeak	590	nm
Dominant Wavelength IF=350mA [typ.]	λdom	588	nm
Spectral bandwidth at 50%ΦREL MAX IF=350mA [typ.]	Δλ	20	nm
Viewing angle at 50%ΦV [typ.]	θ	30	°
Forward Voltage IF=350mA [typ.]	VF	2.5	V
Reverse Current (VR=5V) [typ.]	IR	10	μA
Temperature coefficient of λpeak IF=350mA, -10°C≤T≤100°C [typ.]	TCλpeak	0.15	nm/°C
Temperature coefficient of λdom IF=350mA, -10°C≤T≤100°C [typ.]	TCλdom	0.13	nm/°C
Temperature coefficient of VF IF=350mA, -10°C≤T≤100°C [typ.]	TCV	-2.0	mV/°C

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