### imall

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

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#### PRELIMINARY SPEC



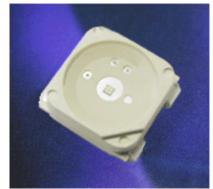
ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

#### Features

- PLCC-4 package.
- Single color.
- High luminance.
- High power, operating current @350mA.
- Suitable for all SMT assembly methods.
- Package : 500pcs / reel.
- Moisture sensitivity level : level 4.
- Patent pending.
- RoHS compliant.

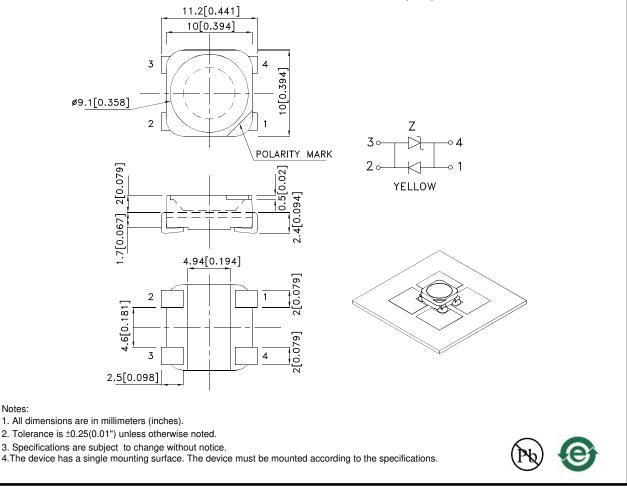
### XPower

### Part Number: AA1010SY28ZC SUPER BRIGHT YELLOW



#### 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



REV NO: V.2 CHECKED: Allen Liu DATE: MAR/31/2009 DRAWN: D.M.Su PAGE: 1 OF 5 ERP:1201100044

### Package Dimensions

#### Selection Guide Φv (lm) [2] @ 350mA luminous Intensity [2] Viewing lv(cd)@ 350mA Angle [1] Part No. Dice Lens Type 201/2 Min. Тур. Min. Тур. AA1010SY28ZC SUPER BRIGHT YELLOW (AlGaInP) WATER CLEAR 5.7 9 12.5 23 120°

Notes:

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	1.2	W
Junction temperature	TJ	110	°C
Operating Temperature	Тор	-40 To +85	°C
Storage Temperature	Tstg	-40 To +85	°C
DC Forward Current [1]	lF	350	mA
Peak Forward Current [2]	Іғм	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.

2.1/10 Duty Cycle, 0.1ms Pulse Width.

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

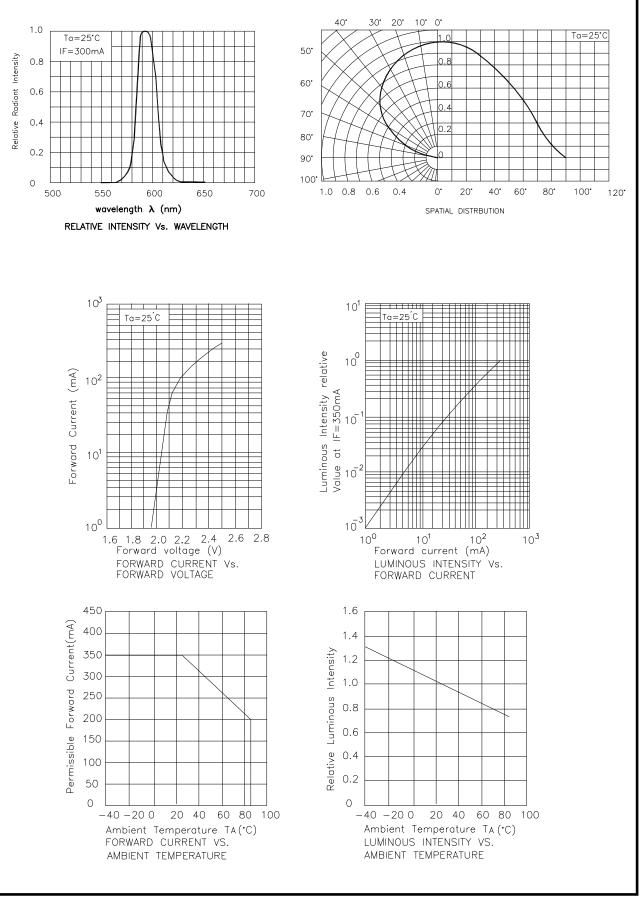
Parameter	Symbol	Value	Unit
Wavelength at peak emission IF=350mA [Typ.]	λpeak	590	nm
Dominant Wavelength IF=350mA [Typ.]	λdom [1]	588	nm
Spectral bandwidth at 50% $\Phi_{\text{REL MAX}}$ IF=350mA [Typ.]	Δλ	20	nm
Forward Voltage IF=350mA [Min.]		2.0	v
Forward Voltage IF=350mA [Typ.]	VF [2]	2.5	
Forward Voltage IF=350mA [Max.]		3.0	
Temperature coefficient of λpeak I⊧=350mA, -10°C≤ T≤100°C [Typ.]	TCapeak	0.15	nm/°C
Temperature coefficient of λdom I⊧=350mA, -10°C≤ T≤100°C [Typ.]	TCλdom	0.13	nm/°C
Temperature coefficient of VF IF=350mA, -10°C $\leq$ T $\leq$ 100°C [Typ.]	TCv	-2.0	mV/°C

Notes:

1.Wavelength: +/-1nm.

2. Forward Voltage: +/-0.1V.

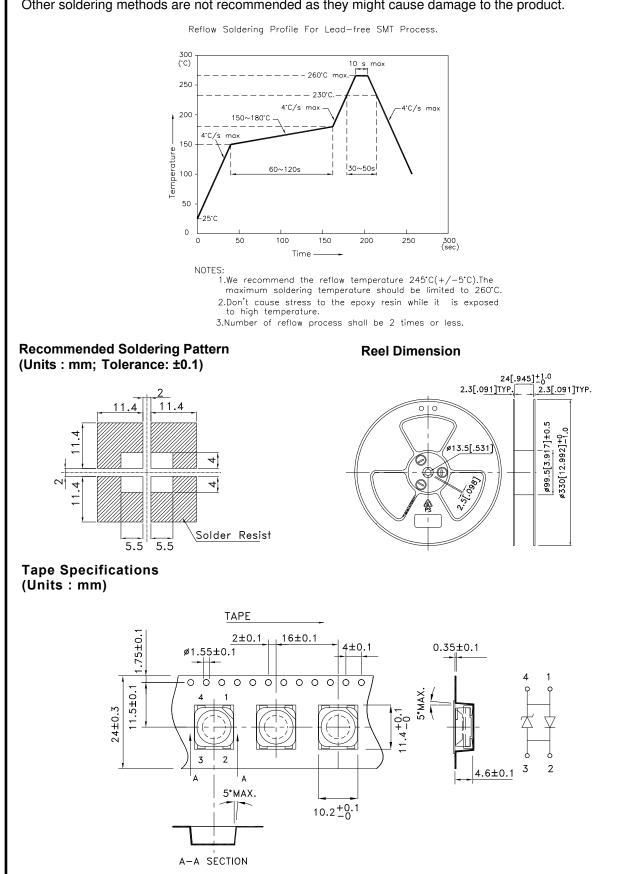
### AA1010SY28ZC



SPEC NO:DSAH7222 APPROVED: WYNEC REV NO: V.2 CHECKED: Allen Liu DATE: MAR/31/2009 DRAWN: D.M.Su PAGE: 3 OF 5 ERP:1201100044

### AA1010SY28ZC

Reflow soldering is recommended and the soldering profile is shown below. Other soldering methods are not recommended as they might cause damage to the product.



SPEC NO:DSAH7222 APPROVED: WYNEC REV NO: V.2 CHECKED: Allen Liu DATE: MAR/31/2009 DRAWN: D.M.Su PAGE: 4 OF 5 ERP:1201100044

