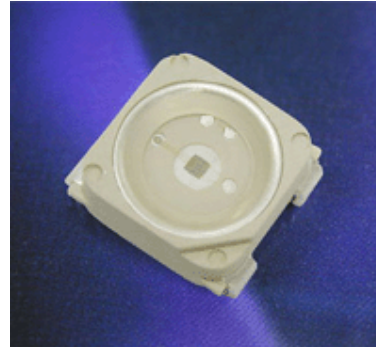


PRELIMINARY SPEC

Part Number : AA1011SEC28 Reddish-Orange

### Features

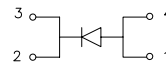
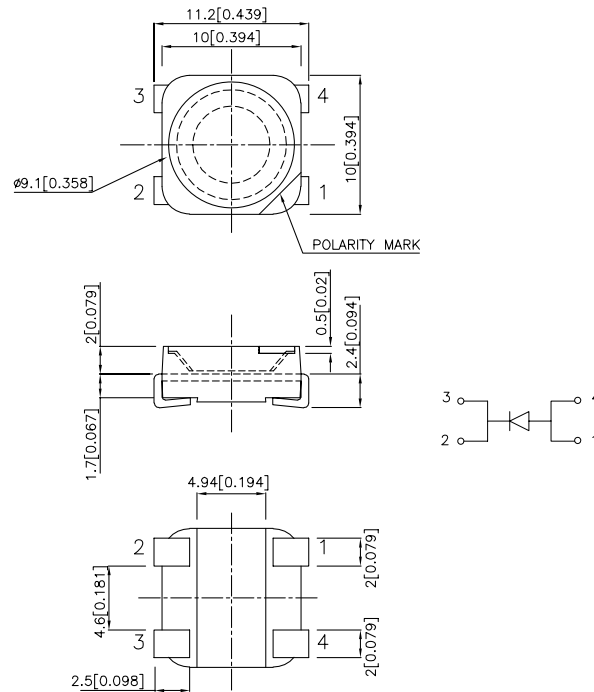
- PLCC-4 PACKAGE.
- SINGLE COLOR.
- HIGH LUMINANCE.
- HIGH POWER, OPERATING CURRENT @350mA.
- SUITABLE FOR ALL SMT ASSEMBLY METHODS.
- PACKAGE : 500PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- PATENT PENDING.
- RoHS COMPLIANT.



### 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. Specifications are subject to change without notice.

## Selection Guide

Part No.	Dice	Lens Type	luminous Intensity Iv(cd)@ 350 mA [2]		Φv (lm) @ 350mA [2]		Viewing Angle [1]
			Min.	Typ.	Min.	Typ.	2θ1/2
AA1011SEC28	Reddish-Orange (InGaAlP)	WATER CLEAR	24	40	15	22	45°

Notes:

- 01/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
- Luminous Intensity / Luminous Flux: +/-15%.

## Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power dissipation	Pt	1.2	W
Reverse Voltage	VR	5	V
Junction temperature	TJ	110	°C
Operating Temperature	Top	-40 To +85	°C
Storage Temperature	Tstg	-40 To +85	°C
DC Forward Current [1]	IF	350	mA
Peak Forward Current [2]	IFM	500	mA
Thermal resistance [1]	Rth	60	°C/W

Notes:

- 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.
- 1/10 Duty Cycle, 0.1ms Pulse Width.

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

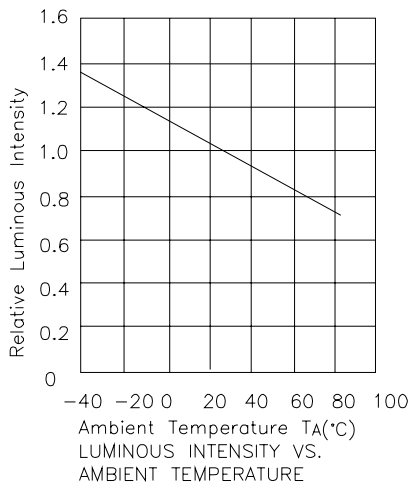
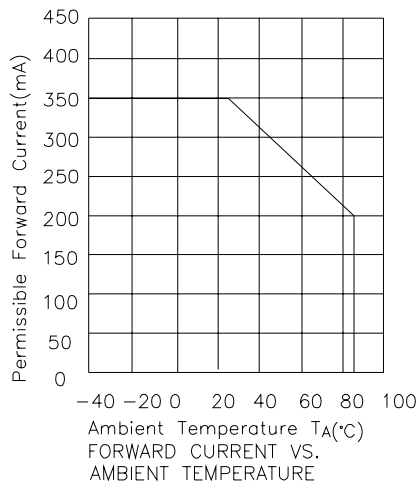
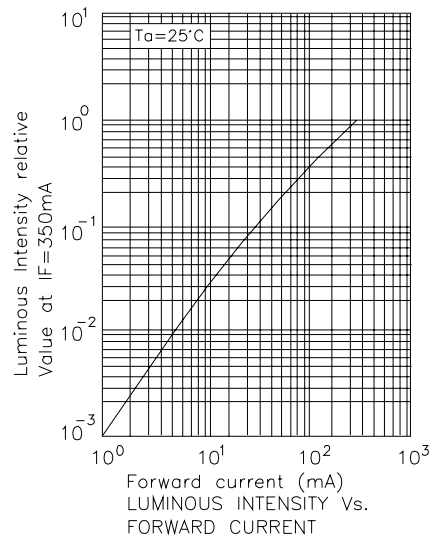
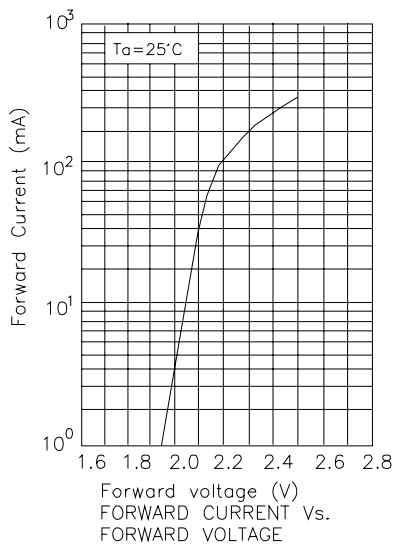
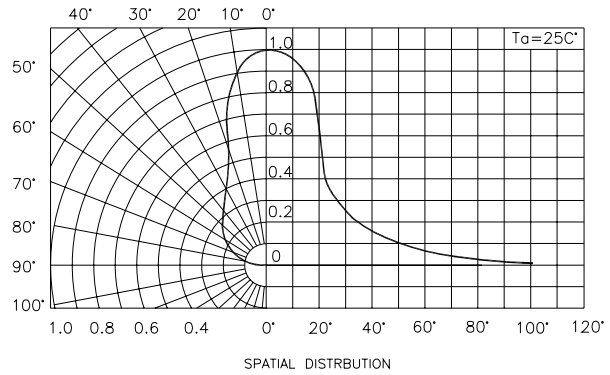
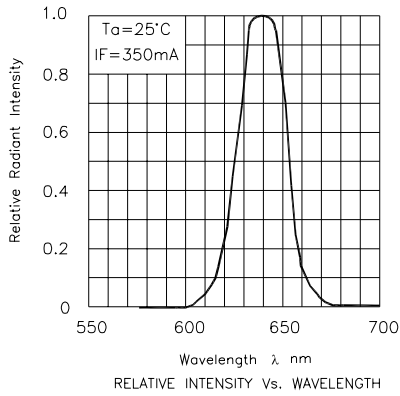
Parameter	Symbol	Value	Unit
Wavelength at peak emission IF=350mA [Typ.]	λpeak	640	nm
Dominant Wavelength IF=350mA [Typ.]	λdom [1]	625	nm
Spectral bandwidth at 50%ΦREL MAX IF=350mA [Typ.]	Δλ	30	nm
Viewing angle at 50%Φv [Typ.]	θ	45	°
Forward Voltage IF=350mA [Min.]	VF [2]	2.0	V
Forward Voltage IF=350mA [Typ.]		2.5	
Forward Voltage IF=350mA [Max.]		3.0	
Reverse Current (VR=5V) [Max.]	IR	10	μA
Temperature coefficient of λpeak IF=350mA, -10°C≤ T≤100°C [Typ.]	TCλpeak	0.14	nm/°C
Temperature coefficient of λdom IF=350mA, -10°C≤ T≤100°C [Typ.]	TCλdom	0.12	nm/°C
Temperature coefficient of VF IF=350mA, -10°C≤ T≤100°C [Typ.]	TCv	-3.0	mV/°C

Notes:

- Wavelength: +/-1nm.
- Forward Voltage: +/-0.1V.

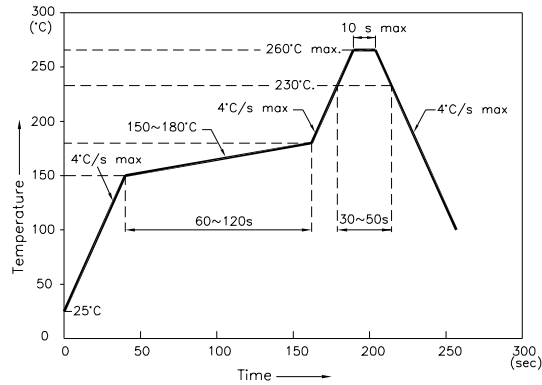
# Kingbright

## AA1011SEC28



## AA1011SEC28

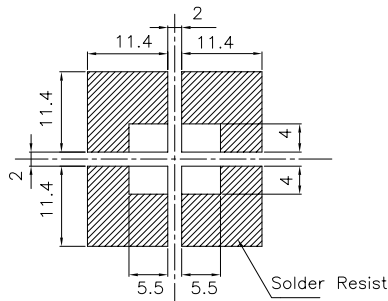
Reflow Soldering Profile For Lead-free SMT Process.



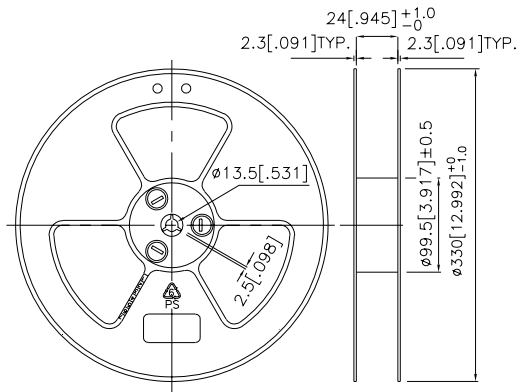
**NOTES:**

1. We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

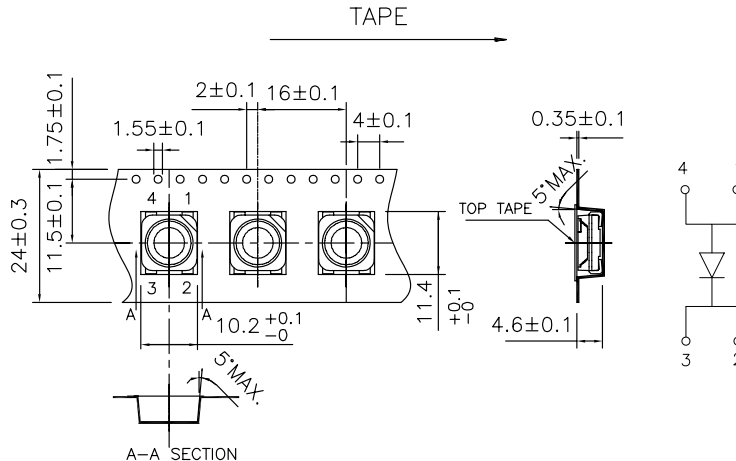
### Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



### Reel Dimension

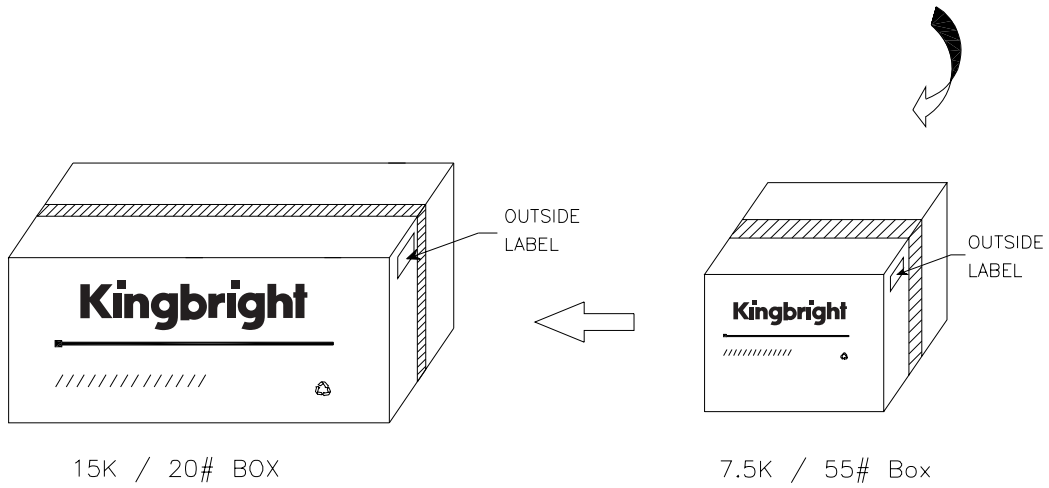
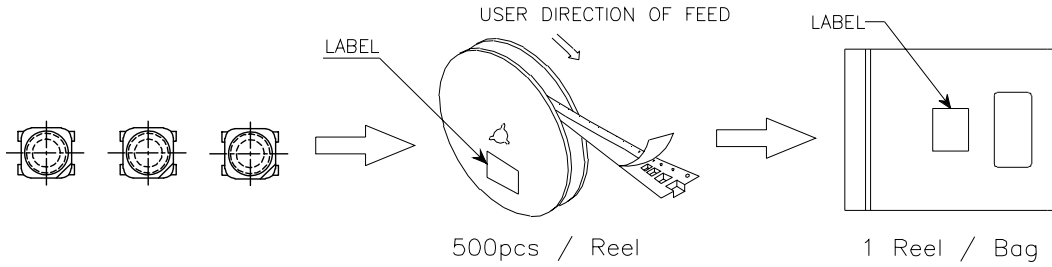



### Tape Specifications (Units : mm)



**PACKING & LABEL SPECIFICATIONS**

**AA1011SEC28**



<b>Kingbright</b>	
P/N0: AA1011xxx	
QTY: 500 pcs	Q.C. <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Q C xx xx. xxxx PASSED</span>
S/N: XXXX	Date
CODE: XXX	
LOT NO:	
 <small>xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx</small>	
RoHS Compliant	