Kingbright

3.5x2.8 mm INFRARED EMITTING DIODE

PRELIMINARY SPEC

Part Number: AA3528SF4C-R

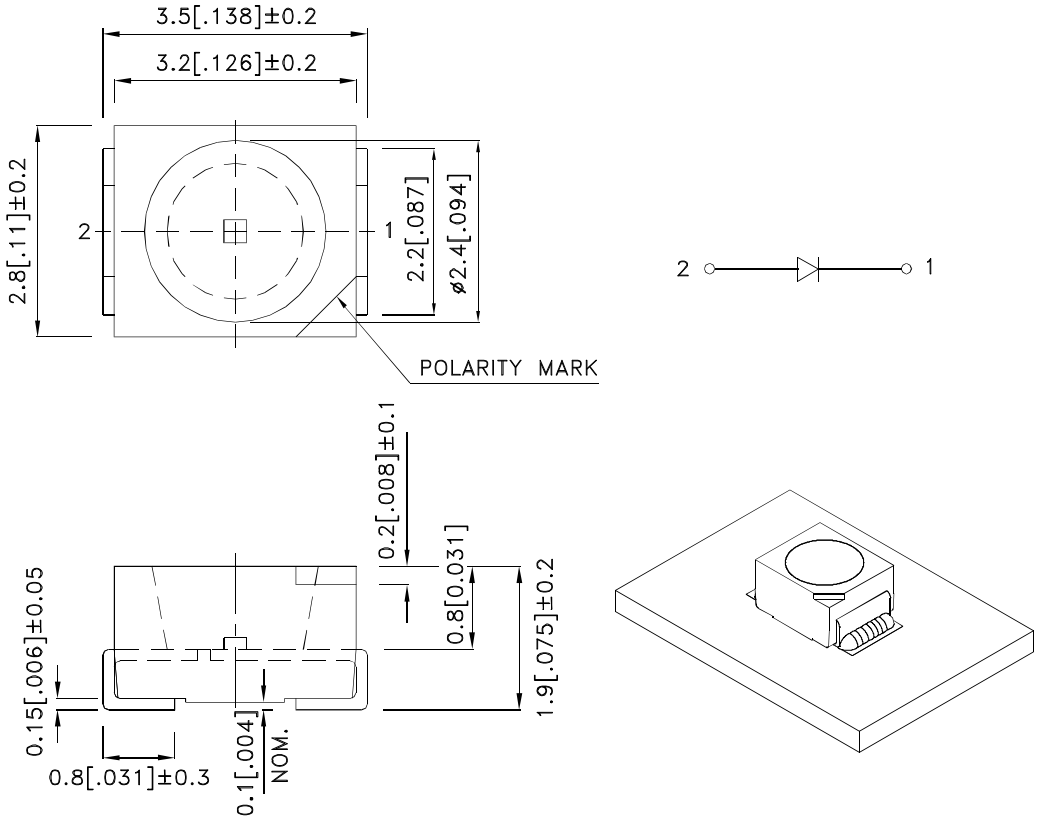
Features

- Mechanically and spectrally matched to the phototransistor.
- Package : 1500pcs / reel.
- Moisture sensitivity level : level 4.
- RoHS compliant.

Description

SF4 Made with Gallium Aluminum Arsenide Infrared Emitting diodes.

Package Dimensions



Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.
3. Specifications are subject to change without notice.
4.The device has a single mounting surface. The device must be mounted according to the specifications.

Selection Guide

Part No.	Dice	Lens Type	Po (mW/sr) [2] @ 20mA *50mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
AA3528SF4C-R	SF4 (GaAlAs)	WATER CLEAR	0.4	2	120°
			*4	*8	

Notes:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
2. * Luminous intensity with asterisk is measured at 50mA;Radiant Intensity/ luminous flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

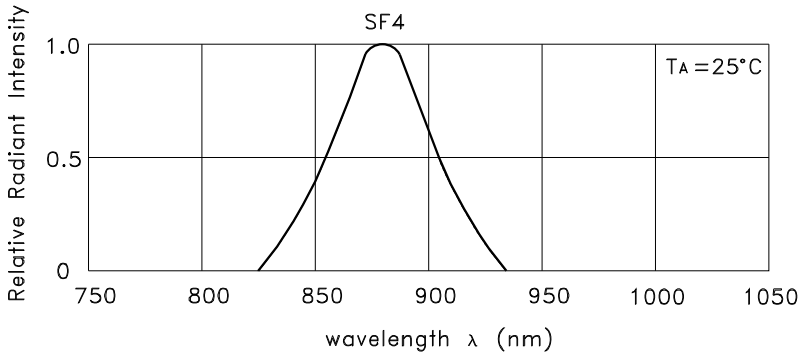
Parameter	P/N	Symbol	Typ.	Max.	Units	Test Conditions
Forward Voltage [1]	SF4	V_F	1.3	1.6	V	I_F=20mA
Reverse Current	SF4	I_R		10	uA	V_R = 5V
Capacitance	SF4	C	90		pF	V_F=0V;f=1MHz
Peak Spectral Wavelength	SF4	λP	880		nm	I_F=20mA
Spectral Bandwidth	SF4	Δλ1/2	50		nm	I_F=20mA

Note:
1. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

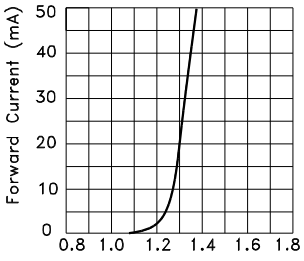
Parameter	Symbol	SF4	Units
Power dissipation	P_D	80	mW
DC Forward Current	I_F	50	mA
Peak Forward Current [1]	i_{FS}	1.2	A
Reverse Voltage	V_R	5	V
Operating Temperature	T_A	-40 To +85	°C
Storage Temperature	T_{STG}	-40 To +85	°C

Note:
1. 1/100 Duty Cycle, 10μs Pulse Width.

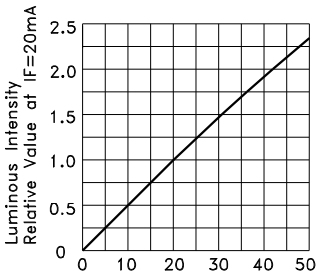


RELATIVE INTENSITY Vs. WAVELENGTH

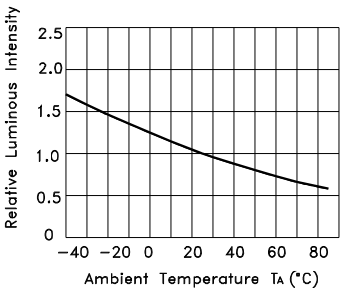
AA3528SF4C-R



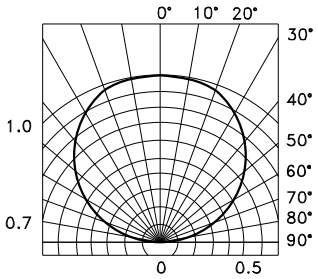
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

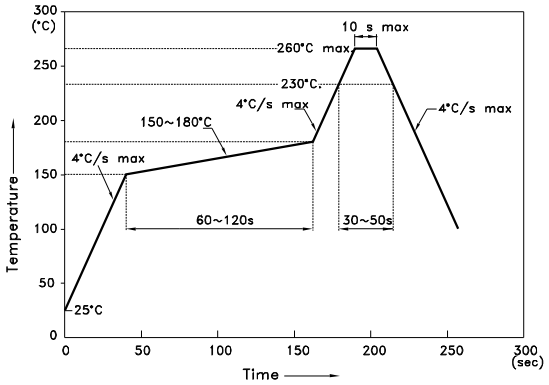


SPATIAL DISTRIBUTION

AA3528SF4C-R

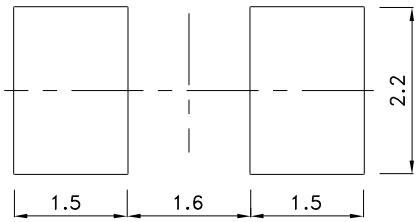
Reflow soldering is recommended and the soldering profile is shown below.
Other soldering methods are not recommended as they might cause damage to the product.

Reflow Soldering Profile For Lead-free SMT Process.

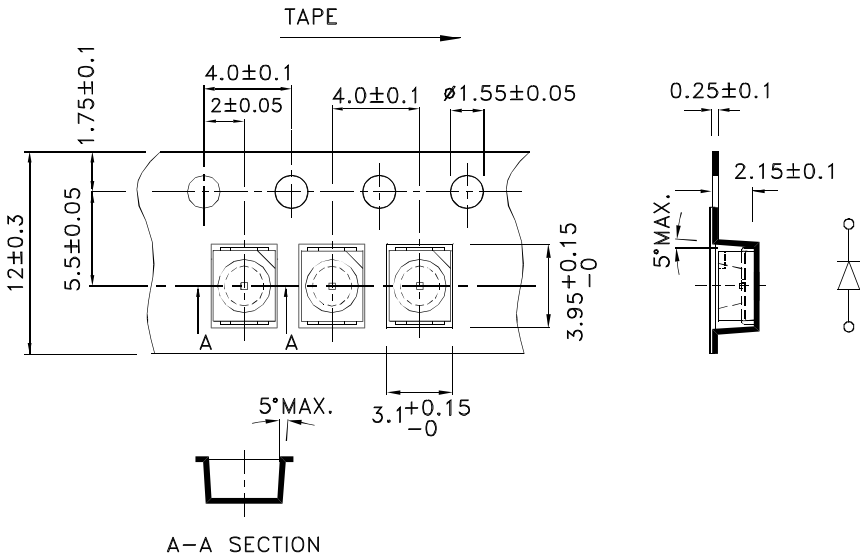
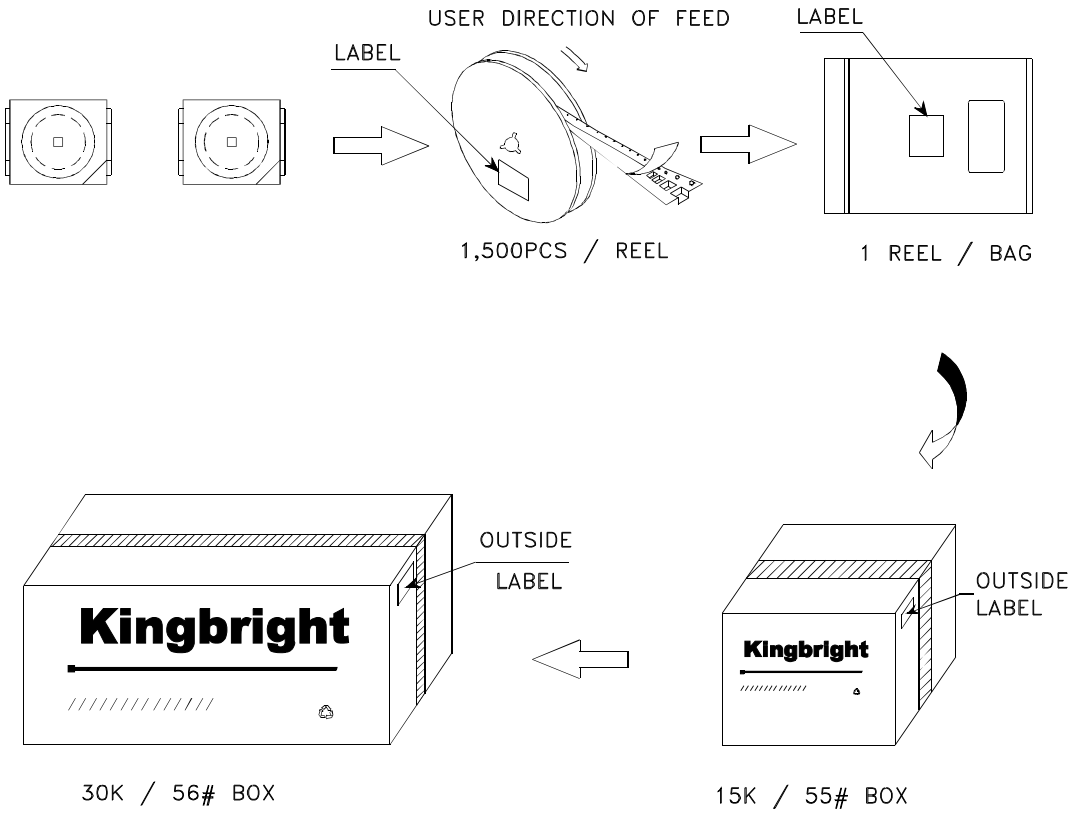
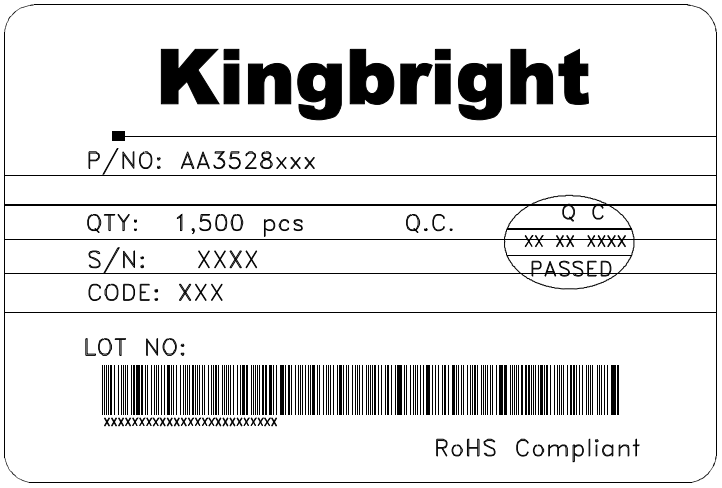


NOTES:
1. We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

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



Tape Specifications
(Units : mm)



PACKING & LABEL SPECIFICATIONS **AA3528SF4C-R**