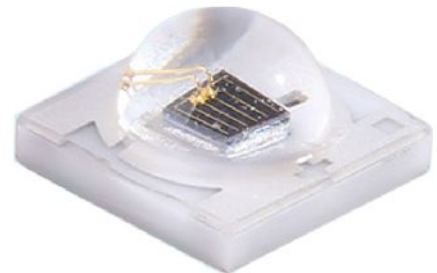


## Светодиод мощный ИК LED1020-1W-A120-R3.45

### 1. Product Features

High Brightness IR LED  
Chip Material: AlGaInP  
Viewing Angle 120°  
Round Package  
Transparent Silicone



### 2. Absolute Maximum Rating at Ta=25°C

Parameter	Symbol	Maximum	Unit
Continuous Forward Current	$I_F$	700	mA
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	$I_{FP}$	1000	mA
Reverse Voltage	$V_R$	5	V
Power Dissipation	$P_D$	3000	mW
Electrostatic Discharge	ESD	1000	V
Operating Temperature Range	$T_{OPR}$	-25~+60	°C
Storage Temperature Range	$T_{STG}$	-35~+80	°C
Lead Soldering Temperature	$T_{SOL}$	260	°C

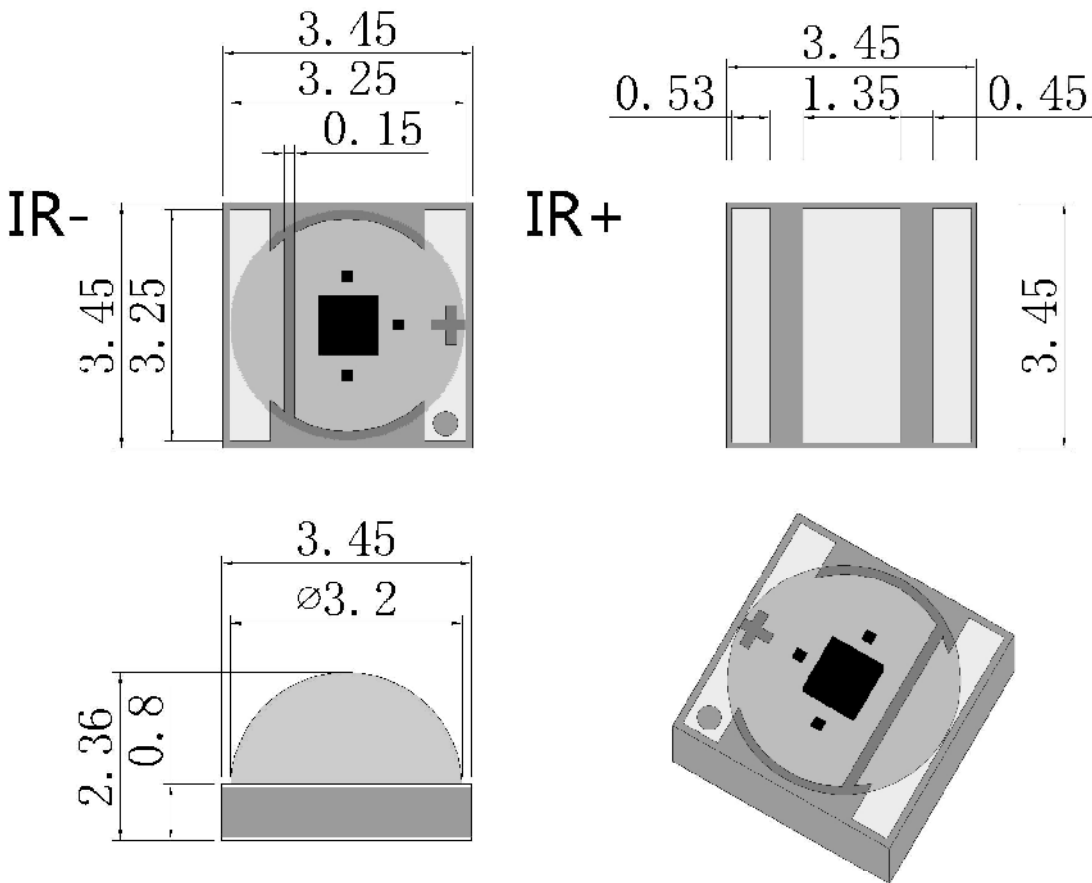
### 3. Optical Character at Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Wavelength	$\lambda_{ld}$	-	1020	-	nm	$I_F=700mA$
Forward Voltage	$V_F$	1.3	1.45	1.6	V	$I_F=700mA$
Reverse Current	$I_R$	0	-	10	$\mu A$	$V_R=5V$
Viewing Angle	$2\theta_{1/2}$	-	-	120	deg	$I_F=700mA$
Recommend Forward	$I_F$ (rec)	-	-	700	mA	

**Notes:** Measurement tolerance of forward voltage  $\pm 0.1V$ .

**Светодиод мощный ИК LED1020-1W-A120-R3.45**

**4. Dimensions**



IR- ●  
( - )



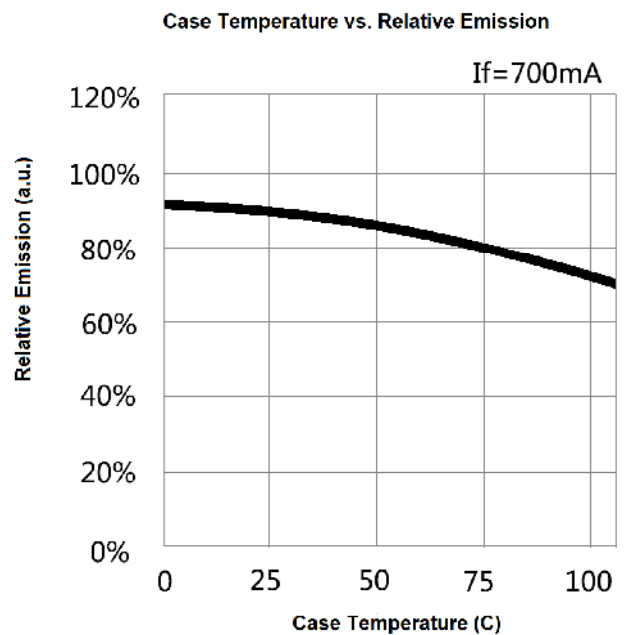
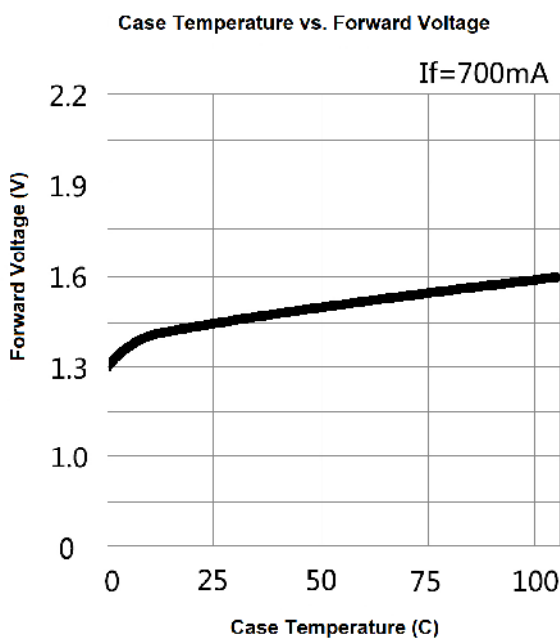
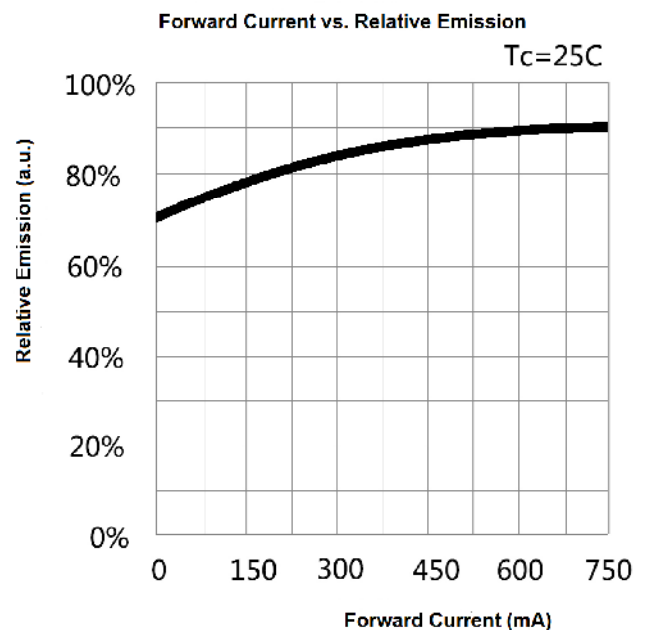
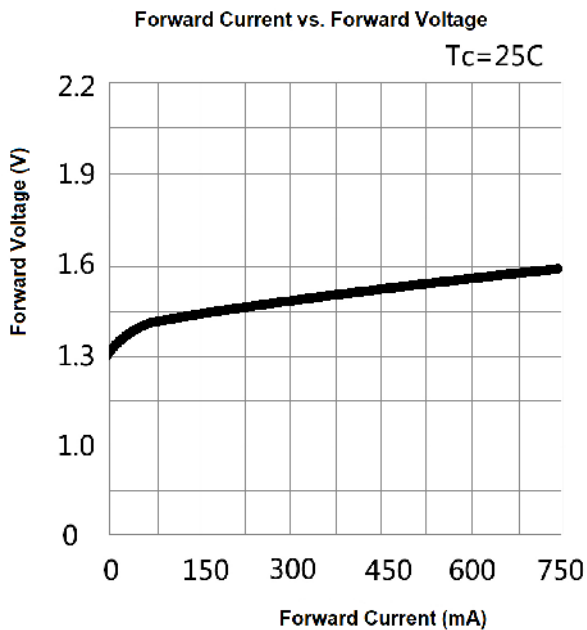
● IR+  
( + )

**Notes:** All dimensions are in mm. Tolerance is  $\pm 0.1$ mm.

**Светодиод мощный ИК LED1020-1W-A120-R3.45**

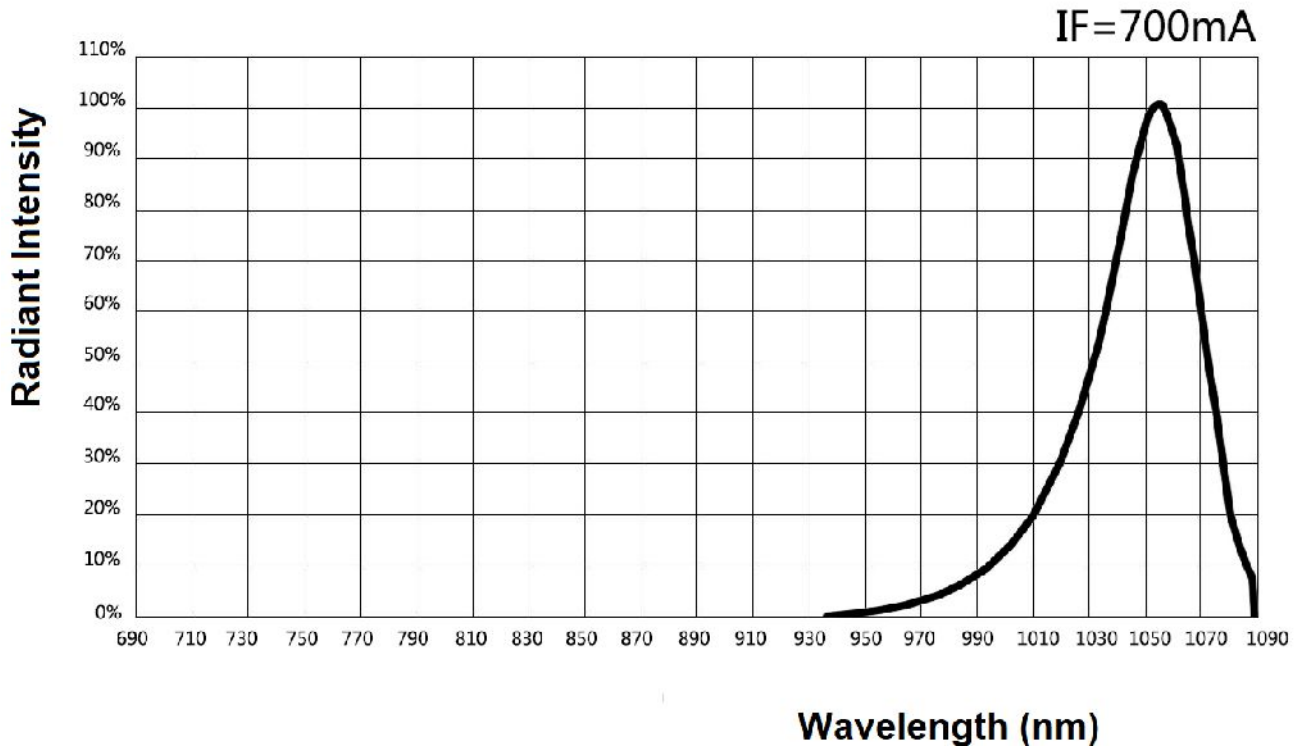
**5. Optical Character Curves**

25°C Ambient Temperature



Светодиод мощный ИК LED1020-1W-A120-R3.45

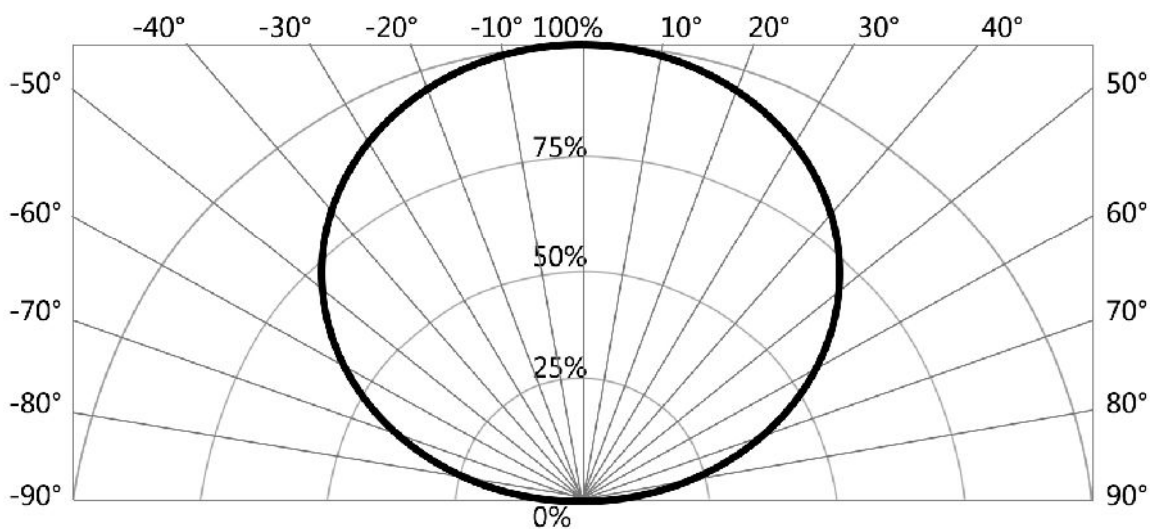
6. Spectrum Curves



7. Viewing Angle Curves

Radiation Characteristics

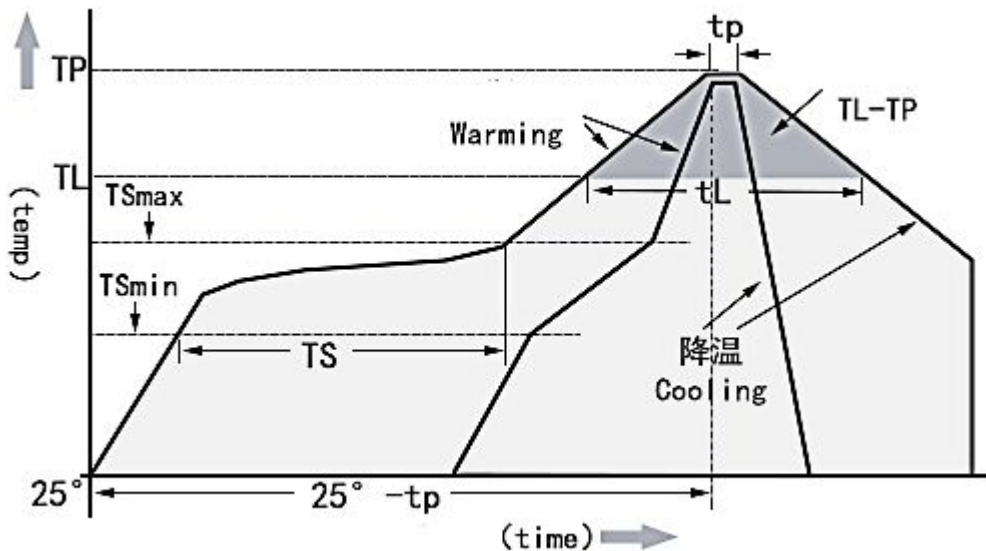
IF=700mA



**Светодиод мощный ИК LED1020-1W-A120-R3.45**

**8. Soldering advice**

When soldering, do not touch the LED appearance gel during, this bad operation will destroy the LED. Molding LED usually use reflow soldering, please refer to the following reflow temperature curve, and recommend the user follow the soldering temperature curve of the solder paste.



Temperature Curve Character	Lead-free solder
Average heating rate ( $T_{Smin}$ to $T_P$ )	$T_{OP} 3^{\circ}C / s$
Preheating: Minimum temperature ( $T_{Smin}$ )	90°C
Preheating: Maximum temperature ( $T_{Smax}$ )	200°C
Preheating: Time ( $T_{Smin}$ to $T_{Smax}$ )	60-180 s
Duration above temperature: Temperature $T_L$	240°C
Duration above temperature: Time $t_L$	60-150 s
Peak/classification temperature ( $T_P$ )	260°C
Time within 5°C of actual peak time ( $t_P$ )	20-40 s
Cooling speed	The highest 6°C / s
Time to reach peak temperature at 25°C	8 minutes Max

## Светодиод мощный ИК LED1020-1W-A120-R3.45

### Cautions

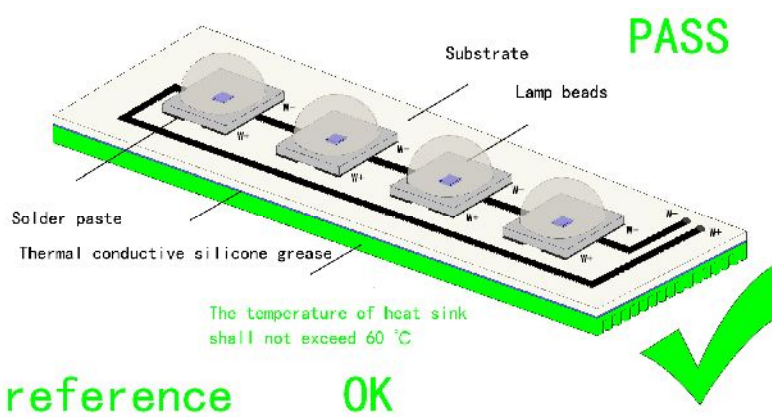
#### 1. Electrostatic Treatment

Do a full range of anti-static measures (such as: anti-static ring, anti-static clothes, machine, equipment grounding wire, etc.)

#### 2. Heat Dissipation

A. It is recommended to configure reasonable heat dissipation device for the product.

B. The best working temperature range of the product is 40-60°. It is recommended to control the working temperature of the product within a reasonable range.



#### 3. Installation Conditions

A. Do not exert any pressure on the LED area during the use of the led beads. If the machine is used to take materials, select a suction nozzle of reasonable size such as below:

