

## THE SPECIFICATION OF AlGaAs IR LED CHIP "IR4K"

### 1. DESCRIPTION

This is a AlGaAs Infrared LED chip. It is N-side up. The peak wavelength is 870 nm (Typ.).

### 2. ELECTRO - OPTICAL CHARACTERISTICS (Ta=25deg. C)

CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage (VF) IF=20mA		1.39		V
Reverse Voltage (VR) IR=10uA	5			V
Radiated Power <sup>1)</sup> (Po) IF=20mA	3.5			mW
Peak Wavelength ( $\lambda_p$ ) IF=20mA		870		nm
Spectral Radiation Bandwidth ( $\Delta\lambda$ ) IF=20mA		45		nm
Rise Time (Tr) IFp=100mA Tw=125ns,Duty=25%		35	53	ns
Fall Time (Tf) IFp=100mA Tw=125ns,Duty=25%		35	53	ns
PeakForward Voltage (Vfm) IFp=400mA Tw=100 $\mu$ s,Duty=10%			3.6	V

1) LED chip is mounted on TO-18 gold header without resin coated.

### 3. ABSOLUTE MAXIMUM RATINGS

Continuous Maximum Forward Current	: 70 mA(DC)
Reverse Voltage	: 5 V(IR=10uA)
Operating Temperature	: -30 to 85 deg. C
Storage Temperature	
while on mylar membrane	: 0 to 40 deg. C
after removal from mylar membrane	: -40 to 100 deg. C

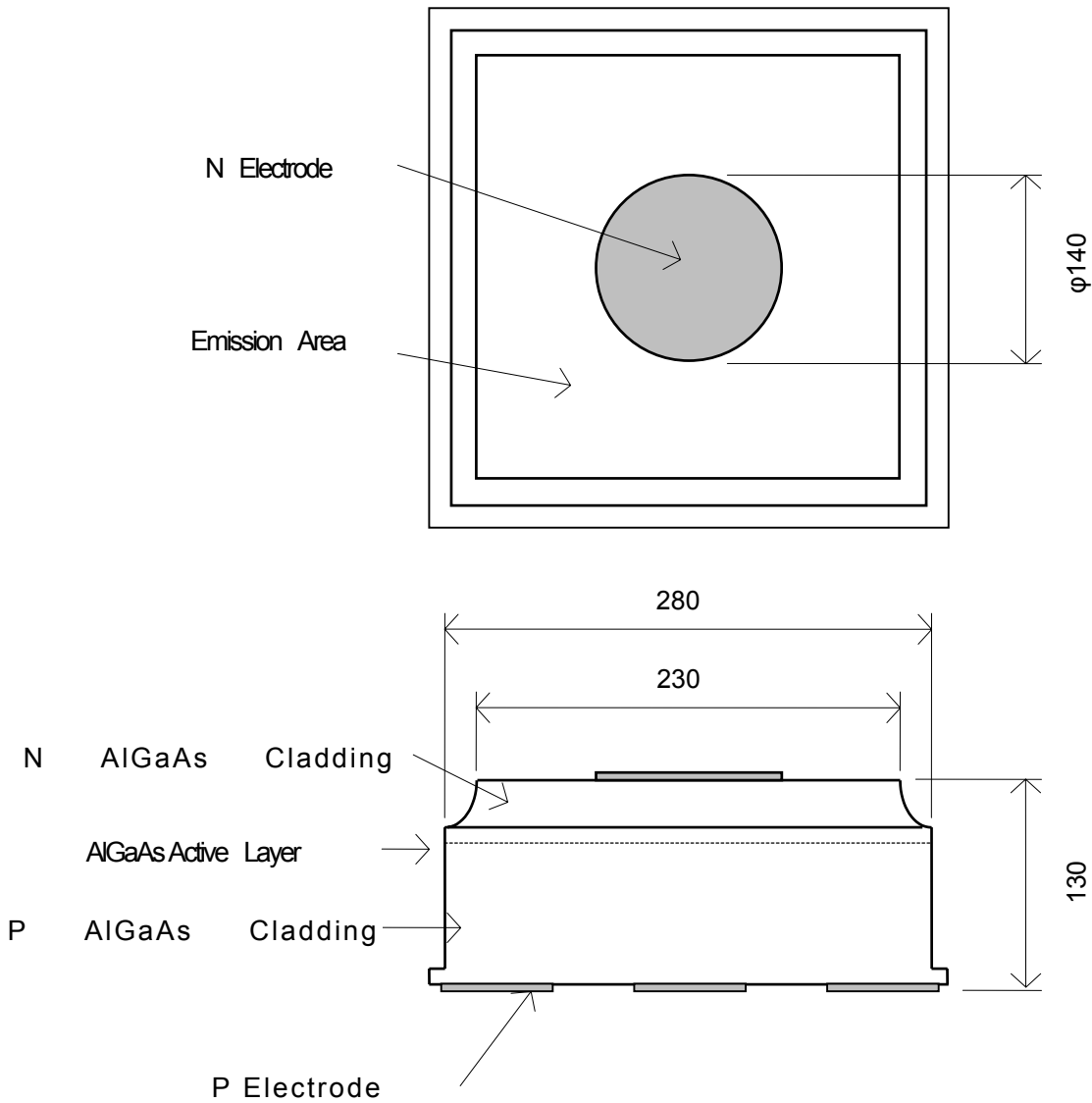
### 4. PHYSICAL CHARACTERISTICS AND STRUCTURE

- 1)Material : AlGaAs
- 2)Structure : Double Hetero Structure
- 3)Junction Size : 0.280mm x 0.280mm
- 4)Thickness : 0.130mm
- 5)Bond Pad Size : 0.140mm diameter
- 6)Anode Metallization : Gold Alloy
- 7)Cathode Metallization: Gold Alloy

Physical Dimensions

Model IR4K

Unit: um



Remark: This specification is for reference purpose only, and subject to change without prior notice.  
Approved specification shall be obtained for the regular purchase.