Nov. 2005

THE SPECIFICATION OF AlGaAs IR LED CHIP "I54R"

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	(V_F)	IF=50mA		1.50	1.65	V
Reverse Voltage	(V_R)	IR=100uA	5			V
Radiated Power[1)]	(Po)	IF=50mA	5.5	6.3		mW
Peak Wavelength	(λ_P)	IF=20mA	850	870	900	nm
Spectral Radiation Bandwidth	(Δλ)	IF=20mA		45		nm
Rise Time	(Tr)	IFp=500mA Tw=42ns,Duty=25%		10	20	ns
Fall Time	(Tf)	IFp=500mA Tw=42ns,Duty=25%		10	20	ns
Peak Forward Voltage	(Vfm)	IFp=500mA Tw=100us,Duty=10%	1.75	2.30	2.60	V

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

3. ABSOLUTE MAXIMUM RATINGS

Continuous Maximum Forward Current : 100 mA(DC)
Continuous Maximum Pulse Current : 700 mA(Tw=100us,Duty=10%)
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 CHRACTERISTICS AND STRUCTURE

1) Material : AlGaAs
2) Structure : Double Hetero Structure
3) Junction Size : 0.370mmX0.370mm
4) Thickness : 0.160mm
5) Bond Pad Size : 0.140mm diameter
6) Anode Metallization : Gold Alloy
7) Cathode Metallization: Gold Alloy

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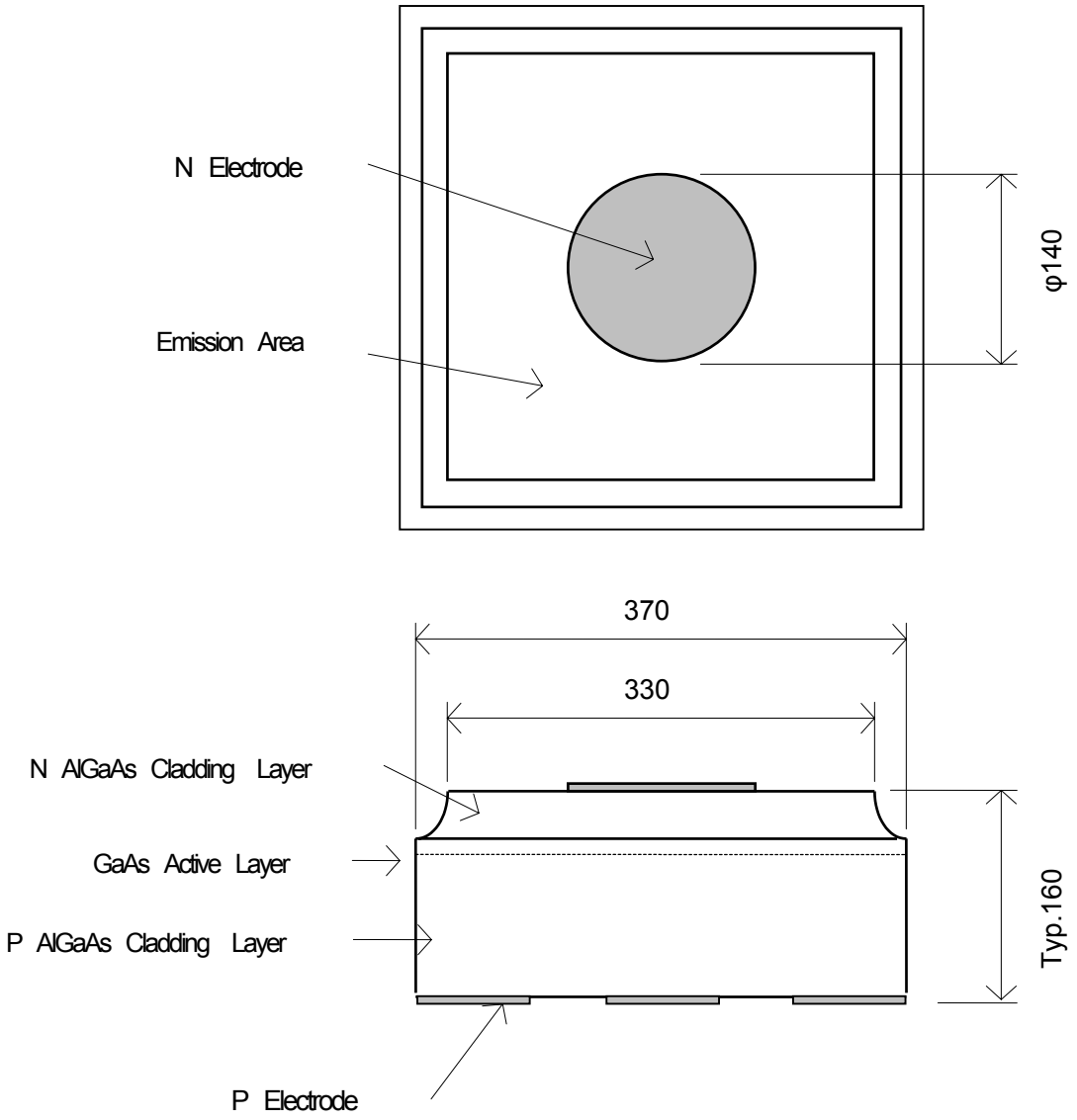
Physical Dimensions

Model I54R

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.