

Infrared Light Emitting Diode

1. GENERAL DESCRIPTION

AT205-Z-01 is high output power AlGaAs infrared light emitting diode, mounted in clear epoxy package. It emits spectrally narrow band of radiation peaking at 940nm.

2. FEATURES

- Wide beam angle.
- Good linearity.
- High output power.
- Capable of pulse operation.
- Low cost

3. ABSOLUTE MAXIMUM RATINGS AT Ta=25

PARAMETER	MAXIMUM RATING	UNIT
Power forward current	150	mW
Peak forward current	1	A
Forward Current	100	mA
Reverse voltage	6	V
Operating temperature range	-40 to 85	
Storage temperature range	-55 to +100	
Lead soldering temperature	260 for 5 seconds	

4. ELECTRICAL OPTICAL CHARACTERISTICS AT Ta=25

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Peak emission wavelength	λ_{peak}		940		nm	$I_F=20mA$
Spectral line half-width	$\Delta\lambda$		50		nm	$I_F=20mA$
Forward voltage	V_F		1.3	1.5	V	$I_F=50mA$
Reverse current	I_R			10	μA	$V_R=6V$
Viewing angle	$2\theta_{1/2}$		34		Deg	

5. TYPICAL ELECTRICAL/OPTICAL CHARACTERISTICS CURVES

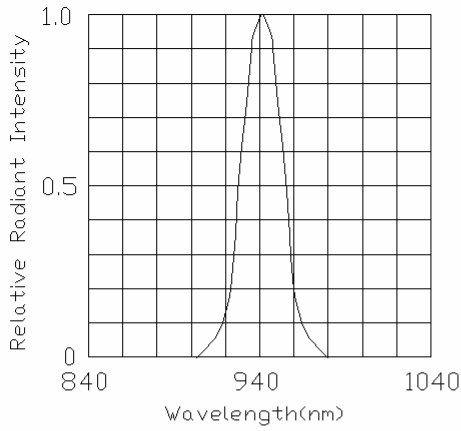


FIG.1 SPECTRAL DISTRIBUTION

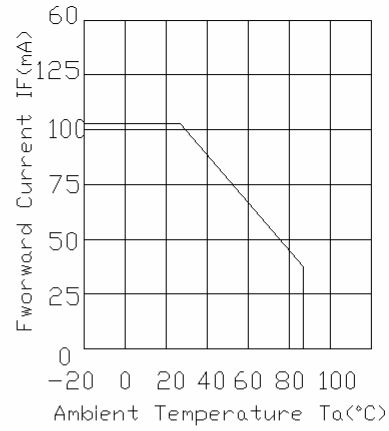


FIG.2 FORWARD CURRENT VS AMBIENT TEMPERATURE

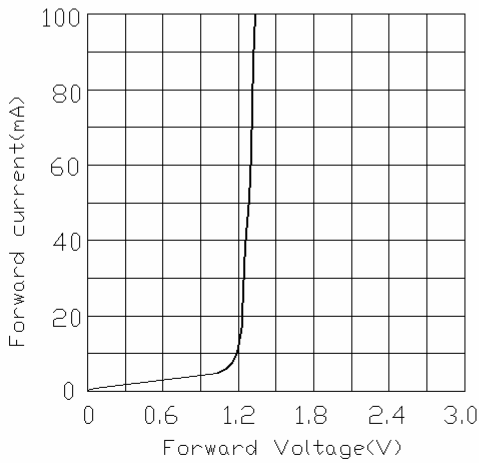


FIG.3 FORWARD CURRENT VS FORWARD VOLTAGE

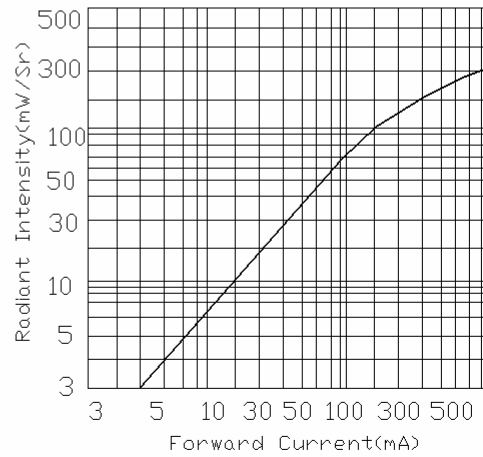


FIG.4 Forward Current VS Radiant Intensity

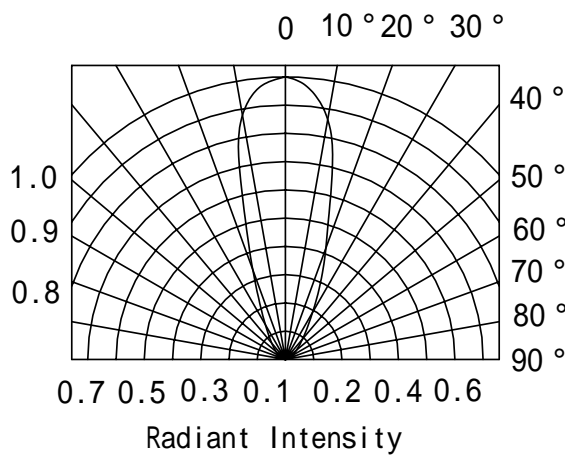
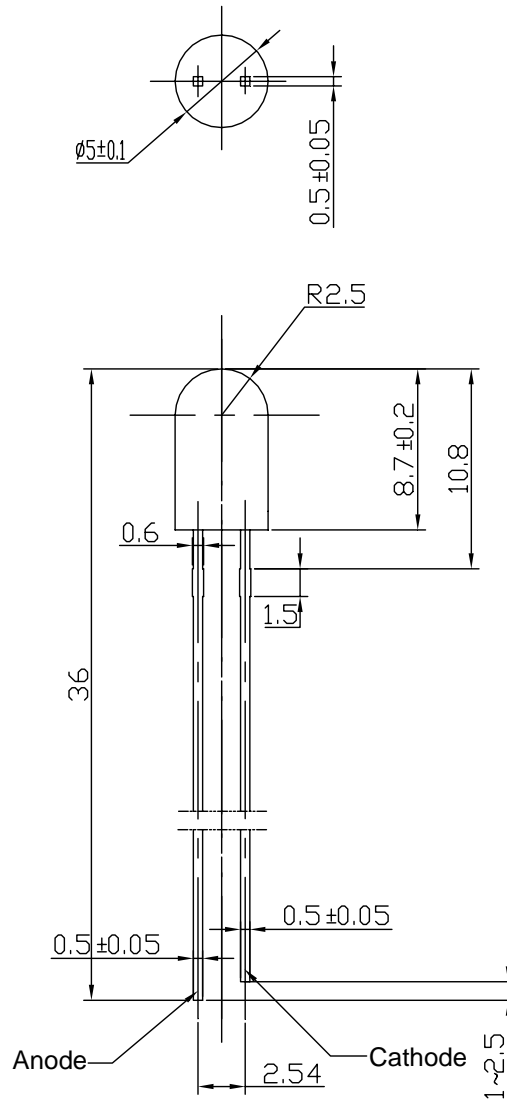


Fig.5 Angle Vs Radiant Intensity

6. DIMENSIONS IN MM



Notes

1. All dimensions are in millimeters.
2. Tolerance is ± 0.2 unless otherwise noted.
3. An epoxy meniscus may extend about "0.5mm" down the leads.