

Infrared Emitting Diodes(GaAlAs)

KODENSHI

CL - 209

The CL - 209 is a high - power GaAlAs IRED mounted in a TO - 46 metal stem with clear epoxy encapsulation, providing wide beam angle.

FEATURES

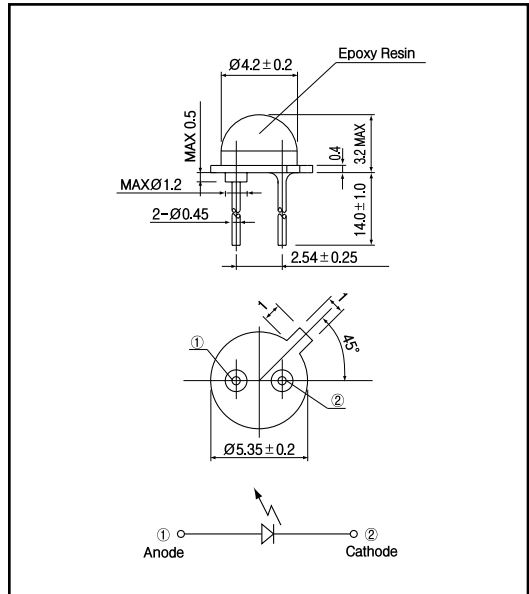
- High output power
- Wide beam angle ± 85 deg.
- TO - 46 epoxy potting type

APPLICATIONS

- Optical switches
- Transportation sensors

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta=25)

Item	Symbol	Rating	Unit
Reverse voltage	V_R	5	V
Forward current	I_F	80	mA
Power dissipation	P_D	130	mW
Pulse forward current ^{*1}	I_{FP}	0.8	A
Operating temp.	$T_{opr.}$	- 20 + 80	
Storage temp.	$T_{stg.}$	- 20 + 80	
Soldering temp. ^{*2}	$T_{sol.}$	240	

*1. pulse width : t_w 100 μ sec, period : T=10msec.

*2. For MAX.5 seconds at the position of 2 mm from the package

ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25)

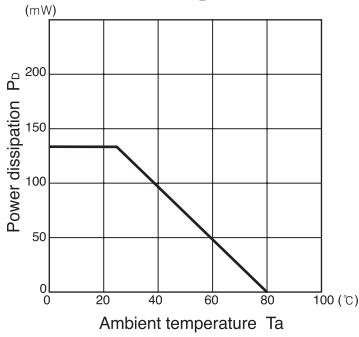
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Forward voltage	V_F	$I_F=20mA$		1.3	1.6	V
Reverse current	I_R	$V_R=5V$			10	μ A
Peak emission wavelength ^{*3}	λ_p	$I_F=50mA$		880		nm
Spectral bandwidth		$I_F=50mA$		70		nm
Radiant intensity	P_D	$I_F=20mA$		30		mV
Half angle				± 85		deg.

*3. Measured by tester of KODENSHI CORP.

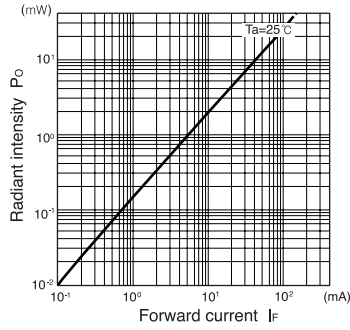
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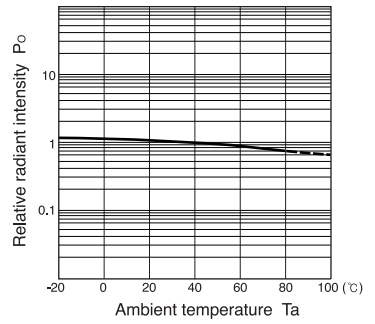
Power dissipation Vs. Ambient temperature



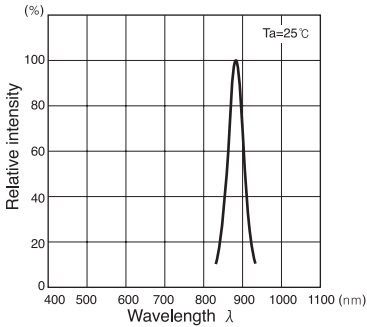
Radiant intensity Vs. Forward current



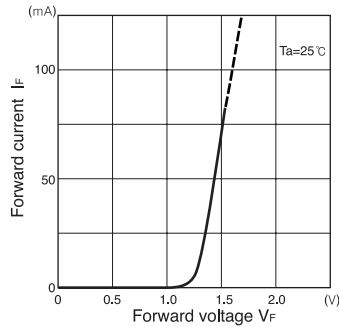
Relative radiant intensity Vs. Ambient temperature



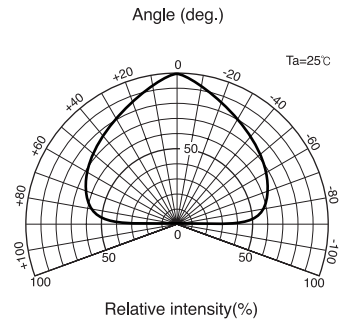
Relative intensity Vs. Wavelength



Forward current Vs. Forward voltage



Radiant Pattern



Relative radiant intensity Vs. Distance

