Infrared Emitting Diodes(GaAlAs)

KODENSHI

CL - 1KL3

The CL - 1KL3 is a high - power GaAlAs IRED mounted in a durable, hermetically sealed TO - 18 metal can package. The output power is high compared to GaAs IREDs (Po=Typ. 30mW/sr)

FEATURES

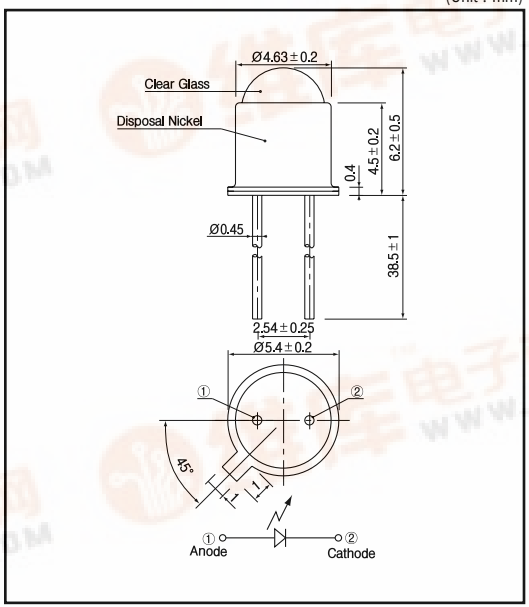
- High - output power
- Narrow beam angle
- Durable
- High reliability in demanding environments

APPLICATIONS

- Optical emitters
- Optical switches
- Encoders
- Smoke sensors

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta=25℃)

Item	Symbol	Rating	Unit
Reverse voltage	V_R	5	V
Forward current	I_F	100	mA
Pulse forward current *1	I_{FP}	1	A
Power dissipation	P_D	170	mW
Operating temp.	Topr.	- 30~ +100	℃
Storage temp.	Tstg.	- 40~ +110	℃
Soldering temp. *2	Tsol.	260	℃

*1. pulse width ：tw =100 μsec.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=100mA		1.4	1.7	V
Reverse current	I_R	V_R=5V			10	μA
Capacitance	Ct	f=1MHz		20		pF
Radiant intensity	P_o	I_F=100mA		30		mW/sr
Peak emission wavelength	λp	I_F=100mA		880		nm
Spectral bandwidth 50%	Δλ	I_F=100mA		50		nm
Half angle	△θ			±17		deg.

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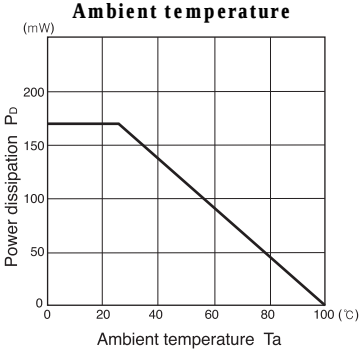
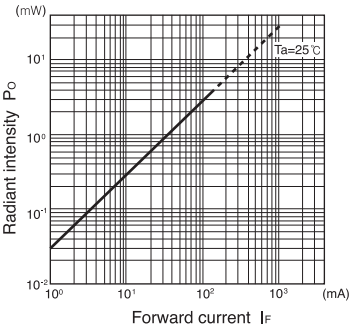
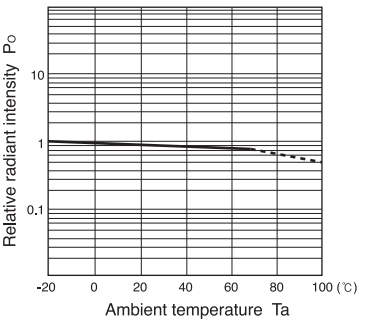
Power dissipation Vs. Ambient temperature



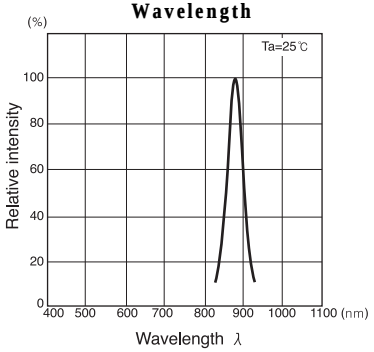
Radiant intensity Vs. Forward current



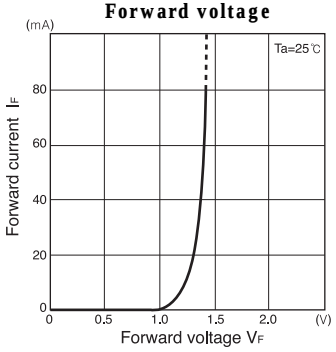
Relative radiant intensity Vs. Ambient temperature



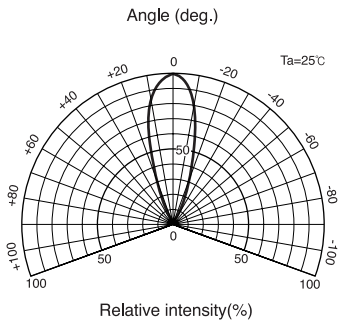
Relative intensity Vs. Wavelength



Forward current Vs. Forward voltage



Radiant Pattern



Relative radiant intensity Vs. Distance