

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**

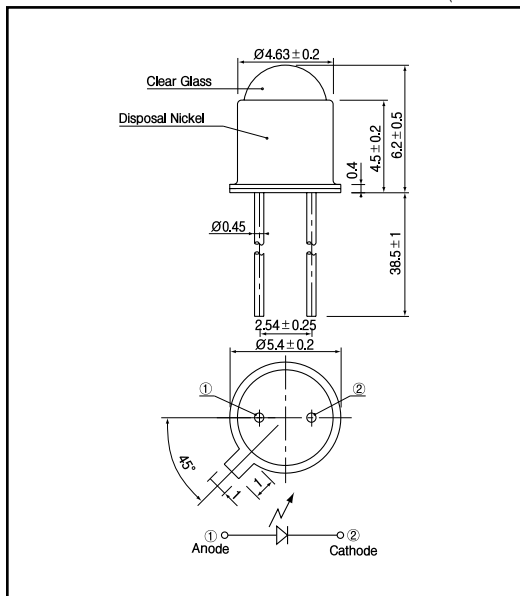
- High - output power
- Narrow beam angle
- Durable
- High reliability in demanding environments

**APPLICATIONS**

- Optical emitters
- Optical switches
- Encoders
- Smoke sensors

**DIMENSIONS**

(Unit : mm)



**MAXIMUM RATINGS**

(Ta=25 )

Item	Symbol	Rating	Unit
Reverse voltage	V <sub>R</sub>	5	V
Forward current	I <sub>F</sub>	100	mA
Pulse forward current *1	I <sub>FP</sub>	1	A
Power dissipation	P <sub>D</sub>	170	mW
Operating temp.	T <sub>opr.</sub>	- 30 ~ + 100	
Storage temp.	T <sub>stg.</sub>	- 40 ~ + 110	
Soldering temp. *2	T <sub>sol.</sub>	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**

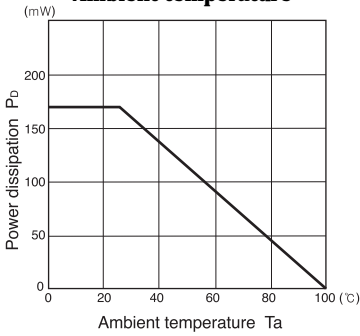
(Ta=25 )

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =100mA		1.4	1.7	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =5V			10	µA
Capacitance	C <sub>t</sub>	f=1MHz		20		pF
Radiant intensity	P <sub>o</sub>	I <sub>F</sub> =100mA		30		mW/sr
Peak emission wavelength	λ <sub>p</sub>	I <sub>F</sub> =100mA		880		nm
Spectral bandwidth 50%		I <sub>F</sub> =100mA		50		nm
Half angle				± 17		deg.

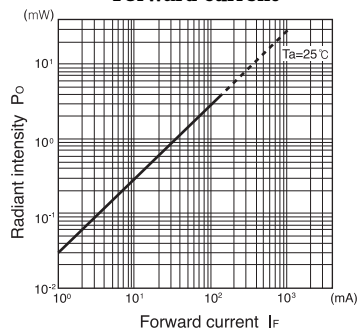
# Infrared Emitting Diodes(GaAlAs)

## CL - 1KL3

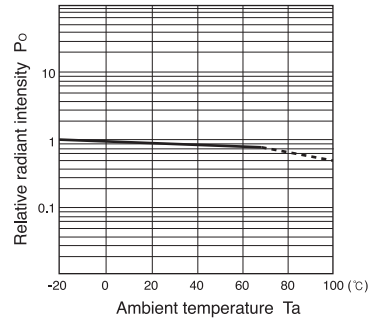
**Power dissipation Vs. Ambient temperature**



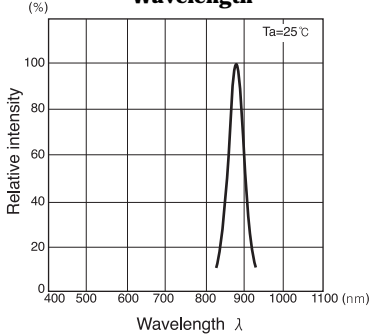
**Radiant intensity Vs. Forward current**



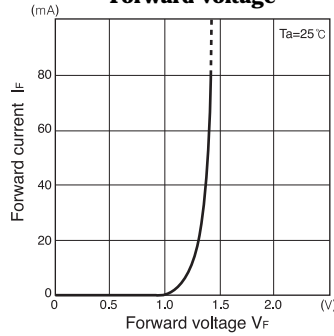
**Relative radiant intensity Vs. Ambient temperature**



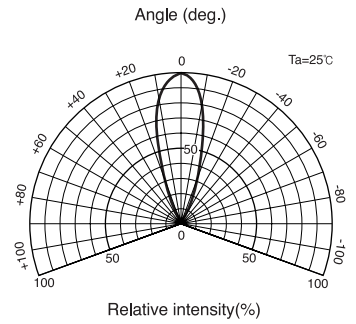
**Relative intensity Vs. Wavelength**



**Forward current Vs. Forward voltage**



**Radiant Pattern**



**Relative radiant intensity Vs. Distance**

