

# EL - 1CL3

The EL - 1CL3 is a high - power GaAs IRED mounted in a 3  $\phi$  low - cost ceramic package, designed for use as low - cost emitter array in consumer and industrial applications.

**FEATURES**

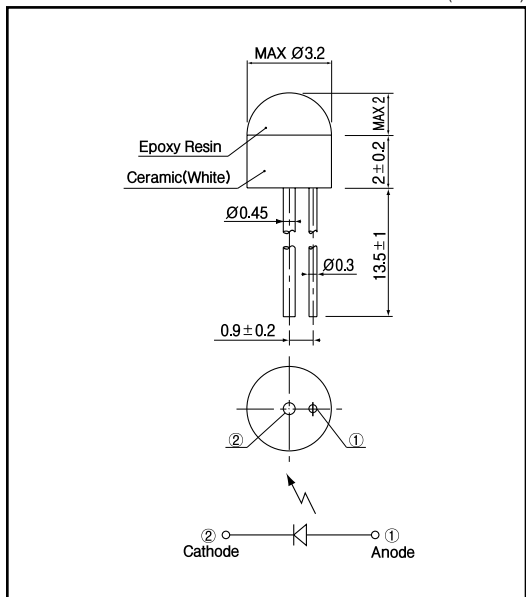
- Compact ( $\phi$ 3mm)
- Wide beam angle
- Low - cost

**APPLICATIONS**

- Floppy disk drives
- Optical switches
- Optical readers

**DIMENSIONS**

(Unit : mm)



**MAXIMUM RATINGS**

(Ta=25 )

Item	Symbol	Rating	Unit
Reverse voltage	V <sub>R</sub>	4	V
Forward current	I <sub>F</sub>	60	mA
Pulse forward current *1	I <sub>FP</sub>	0.5	A
Power dissipation	P <sub>0</sub>	80	mW
Operating temp.	T <sub>opr.</sub>	- 20 ~ + 70	
Storage temp.	T <sub>stg.</sub>	- 20 ~ + 80	
Soldering temp. *2	T <sub>sol.</sub>	240	

\*1. pulse width : tw 100  $\mu$ sec.period : T=10msec.

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

**ELECTRO-OPTICAL CHARACTERISTICS**

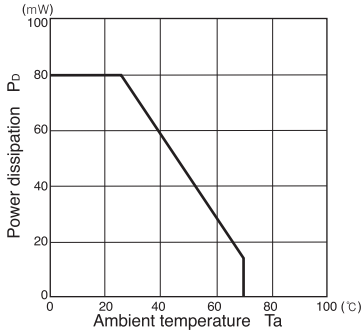
(Ta=25 )

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =40mA		1.2	1.5	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =4V			10	$\mu$ A
Capacitance	C <sub>t</sub>	f=1MHz		25		pF
Radiant intensity	P <sub>0</sub>	I <sub>F</sub> =40mA		1.8		mW/sr
Peak emission wavelength	$\lambda$	I <sub>F</sub> =40mA		940		nm
Spectral bandwidth 50%		I <sub>F</sub> =40mA		50		nm
Half angle				$\pm$ 53		deg.

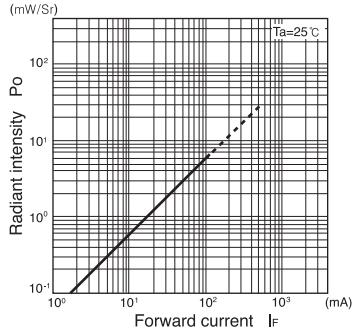
# Infrared Emitting Diodes(GaAs)

EL - 1CL3

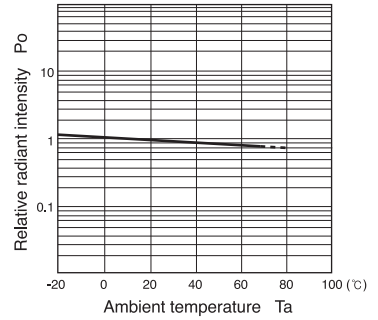
**Power dissipation Vs. Ambient temperature**



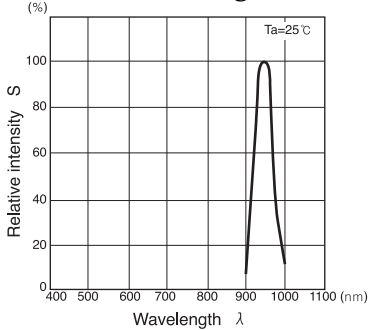
**Radiant intensity Vs. Forward current**



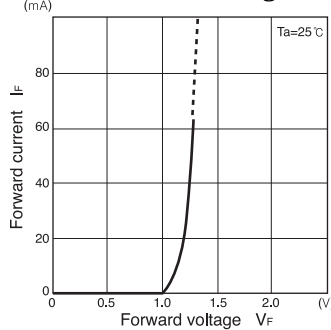
**Relative radiant intensity Vs. Ambient temperature**



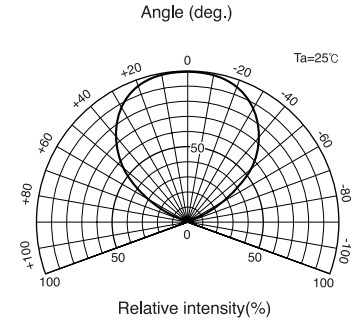
**Relative intensity Vs. Wavelength**



**Forward current Vs. Forward voltage**



**Radiant Pattern**



**Relative radiant intensity Vs. Distance**

