

Infrared Emitting Diodes(GaAs)

KODENSHI

EL - 1CL3

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

FEATURES

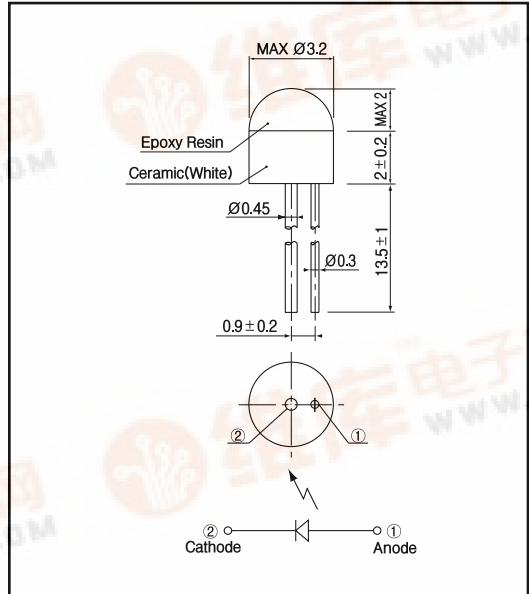
- Compact (ϕ 3mm)
- Wide beam angle
- Low - cost

APPLICATIONS

- Floppy disk drives
- Optical switches
- Optical readers

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta=25)

Item	Symbol	Rating	Unit
Reverse voltage	V _R	4	V
Forward current	I _F	60	mA
Pulse forward current ¹⁾	I _{FP}	0.5	A
Power dissipation	P _o	80	mW
Operating temp.	T _{opr.}	- 20 ~ + 70	
Storage temp.	T _{stg.}	- 20 ~ + 80	
Soldering temp. ²⁾	T _{sol.}	240	

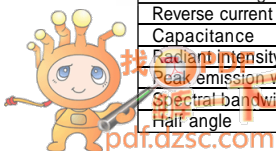
*1. pulse width : t_w 100 μ sec.period : T=10msec.

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

ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25)

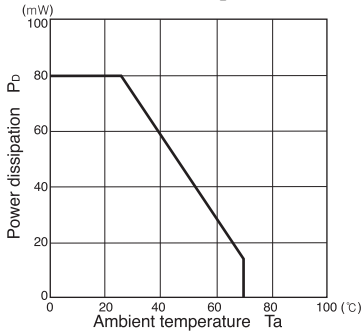
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Forward voltage	V _F	I _F =40mA		1.2	1.5	V
Reverse current	I _R	V _R =4V			10	μ A
Capacitance	C _t	f=1MHz		25		pF
Radiant intensity	P _o	I _F =40mA		1.8		mW/sr
Peak emission wavelength	λ	I _F =40mA		940		nm
Spectral bandwidth 50%		I _F =40mA		50		nm
Half angle				± 53		deg.



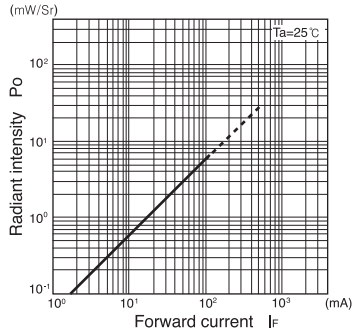
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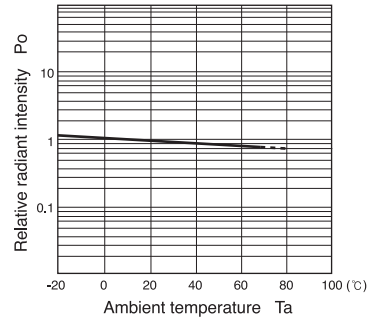
Power dissipation Vs. Ambient temperature



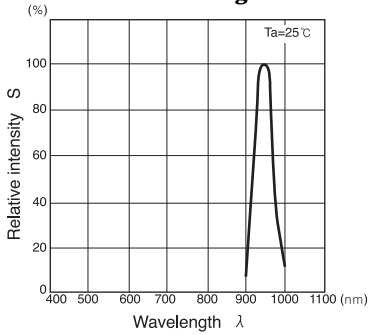
Radiant intensity Vs. Forward current



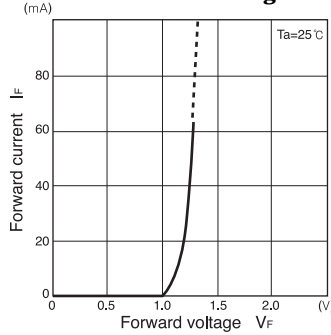
Relative radiant intensity Vs. Ambient temperature



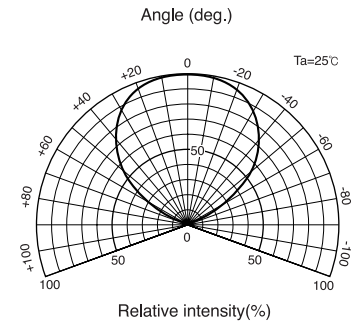
Relative intensity Vs. Wavelength



Forward current Vs. Forward voltage



Radiant Pattern



Relative radiant intensity Vs. Distance

