Infrared Emitting Diodes(GaAs) **KODENSHI**

EL - 1CL3

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

FEATURES

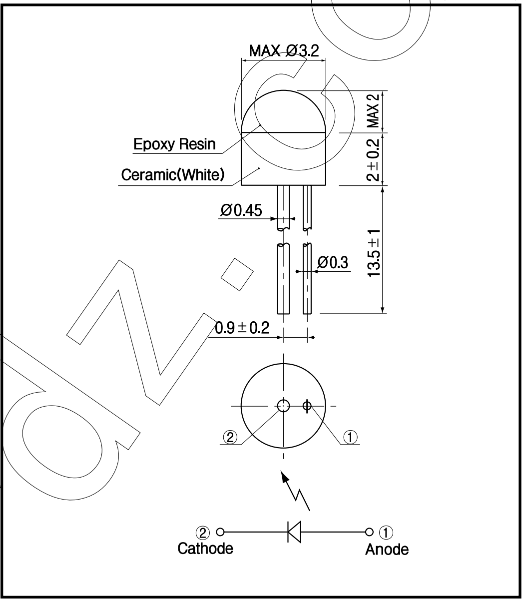
- Compact (ø3mm)
- Wide beam angle
- Low - cost

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_D	80	mW
Operating temp.	Topr.	- 20~+70	℃
Storage temp.	Tstg.	- 20~+80	℃
Soldering temp. [*2]	Tsol.	240	℃

*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=40mA		1.2	1.5	V
Reverse current	I_R	V_R=4V			10	μA
Capacitance	Ct	f=1MHz		25		pF
Radiant intensity	P_O	I_F=40mA		1.8		mW/sr
Peak emission wavelength	λp	I_F=40mA		940		nm
Spectral bandwidth 50%	Δ λ	I_F=40mA		50		nm
Half angle	△θ			±53		deg.

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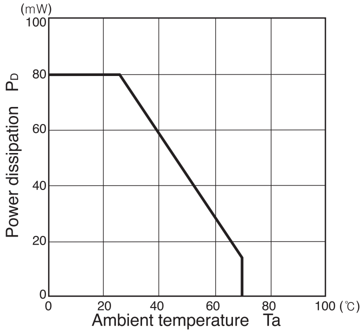
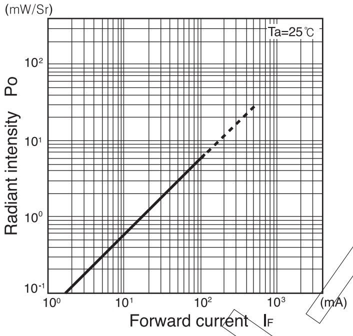
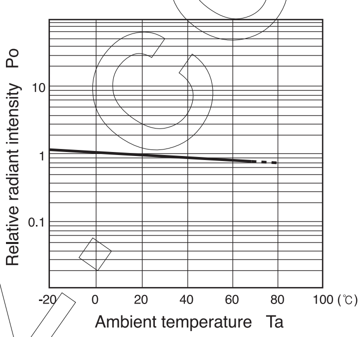
Power dissipation Vs. Ambient temperature



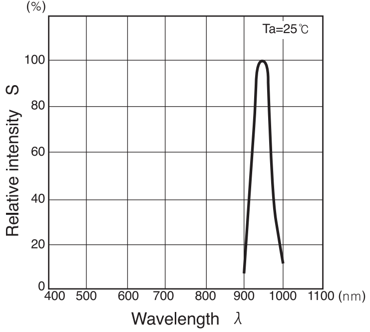
Radiant intensity Vs. Forward current



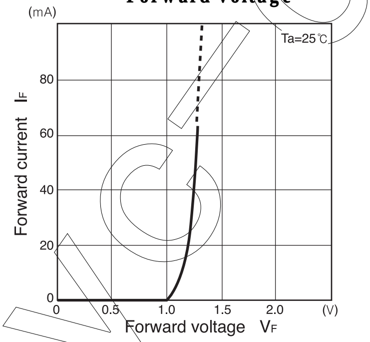
Relative radiant intensity Vs. Ambient temperature



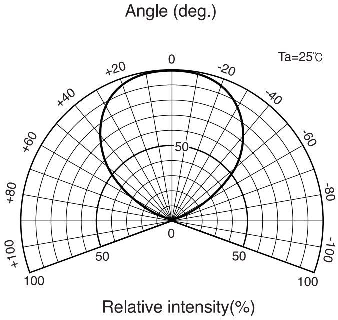
Relative intensity Vs. Wavelength



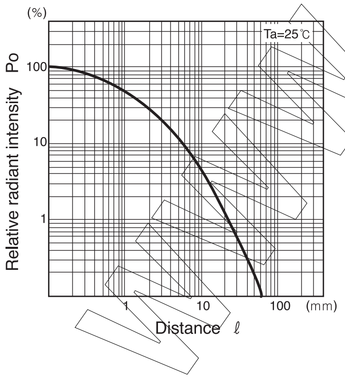
Forward current Vs. Forward voltage

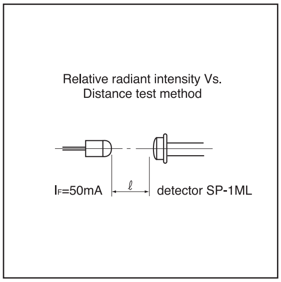


Radiant Pattern



Relative radiant intensity Vs. Distance




Relative radiant intensity Vs. Distance test method