

CL - 1CL3

The CL - 1CL3 is a high - power GaAlAs IRED mounted in a $\varnothing 3$ mm ceramic package. The output power is so high compared to GaAs IREDs.

FEATURES

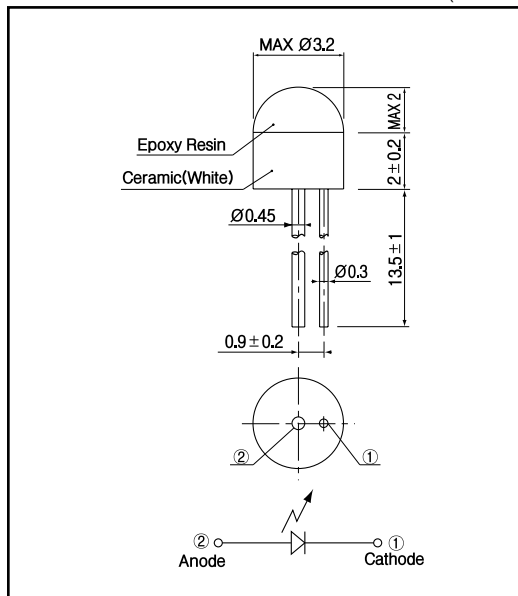
- Compact ($\varnothing 3$ mm)
- Wide beam angle
- Low - cost

APPLICATIONS

- Floppy disk drives
- Optical switches
- Optical readers

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta=25 °C)

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	90	mW
Operating temp.	$T_{opr.}$	- 20 ~ + 70	
Storage temp.	$T_{stg.}$	- 30 ~ + 80	
Soldering temp. ^{*2}	$T_{sol.}$	240	

*1. pulse width : $t_w = 100 \mu\text{sec}$, period : $T = 10\text{msec}$.

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

ELECTRO-OPTICAL CHARACTERISTICS

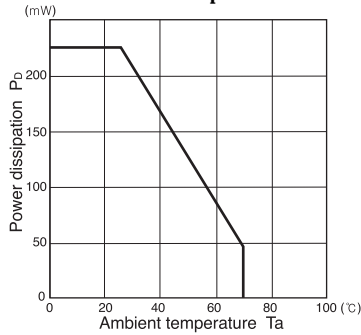
(Ta=25 °C)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Forward voltage	V_F	$I_F = 40\text{mA}$			1.5	V
Reverse current	I_R	$V_R = 4\text{V}$			10	μA
Capacitance	C_t	$f = 1\text{MHz}$		20		pF
Radiant intensity	P_D	$I_F = 40\text{mA}$		3.6		mW/sr
Peak emission wavelength	λ_p	$I_F = 40\text{mA}$		880		nm
Spectral bandwidth 50%	$\Delta \lambda$	$I_F = 40\text{mA}$		50		nm
Half angle	θ			± 53		deg.

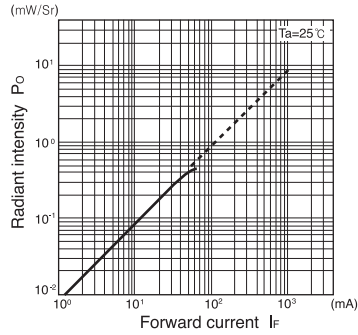
Infrared Emitting Diodes(GaAlAs)

CL - 1CL3

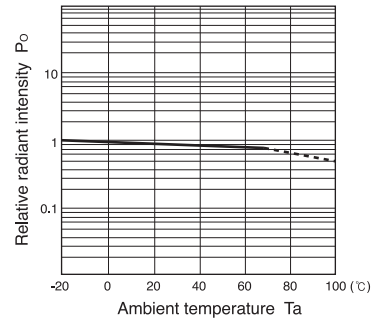
Power dissipation Vs. Ambient temperature



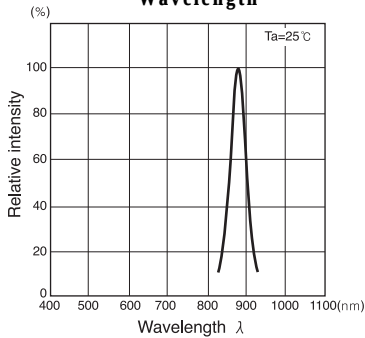
Radiant intensity Vs. Forward current



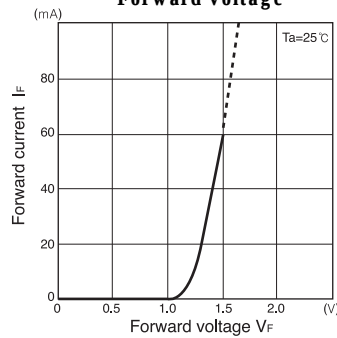
Relative radiant intensity Vs. Ambient temperature



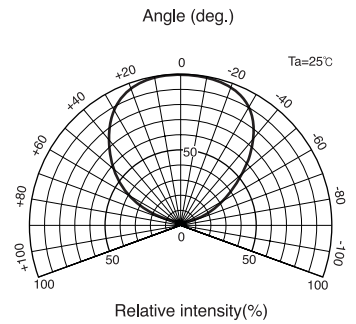
Relative intensity Vs. Wavelength



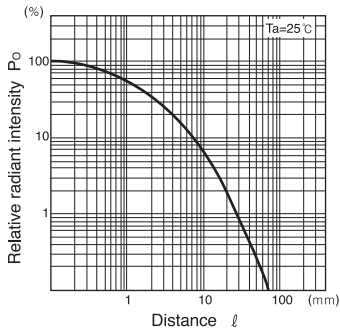
Forward current Vs. Forward voltage



Radiant Pattern



Relative radiant intensity Vs. Distance



Relative radiant intensity Vs. Distance test method

