Infrared Emitting Diodes(GaAs)

KODENSHI

EL - 1ML2

The EL - 1ML2, a high - power GaAs IRED mounted in a TO - 18 type header with clear epoxy encapsulation, has wide beam angle and is relatively low - cost compared to TO - 18 can - type devices.

FEATURES

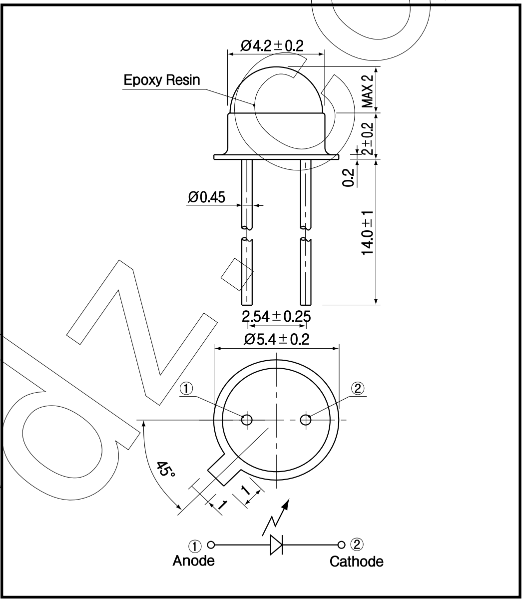
- Wide beam angle
- Relative low cost against metal can package
- Low profile package

APPLICATIONS

- Optical switches
- Encoders
- Optical readers

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta=25℃)

Item	Symbol	Rating	Unit
Reverse voltage	V_R	5	V
Forward current	I_F	100	mA
Pulse forward current [*1]	I_{FP}	1	A
Power dissipation	P_D	170	mW
Operating temp.	Topr.	- 25~+100	℃
Storage temp.	Tstg.	- 25~+100	℃
Soldering temp. [*2]	Tsol.	260	℃

*1. pulse width ：tw ≦100 µsec.period ：T=10msec.

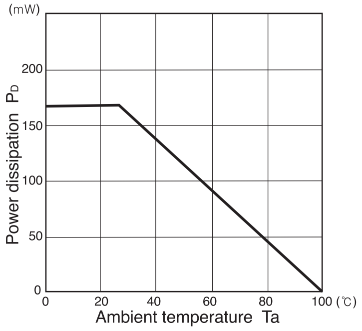
*2. For MAX.5 seconds at the position of 2 mm from the package

ELECTRO-OPTICAL CHARACTERISTICS

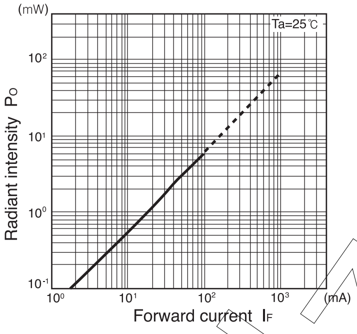
(Ta=25℃)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Forward voltage	V_F	I_F=50mA		1.2	1.5	V
Reverse current	I_R	V_R=5V			10	µA
Capacitance	Ct	f=1MHz		25		pF
Radiant intensity	P_O	I_F=50mA		2.7		mW/sr
Peak emission wavelength	λp	I_F=50mA		940		nm
Spectral bandwidth 50%	Δ λ	I_F=50mA		50		nm
Half angle	△θ			±32		deg.

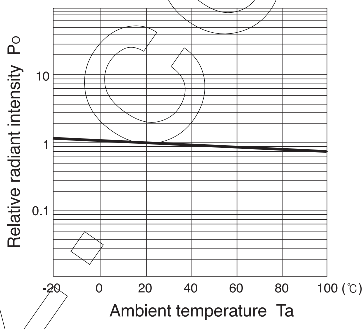
Power dissipation Vs. Ambient temperature



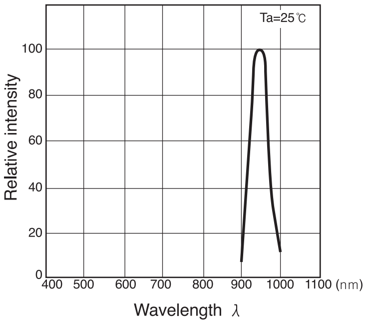
Radiant intensity Vs. Forward current



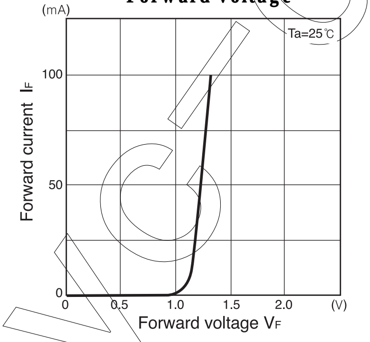
Relative radiant intensity Vs. Ambient temperature



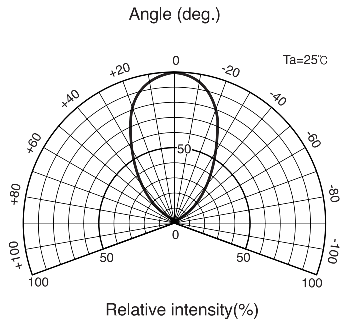
Relative intensity Vs. Wavelength



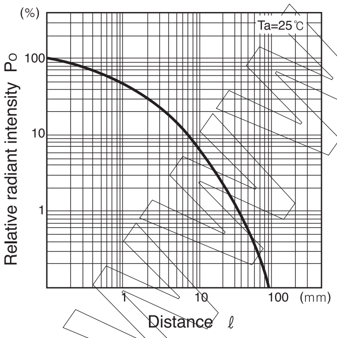
Forward current vs. Forward voltage

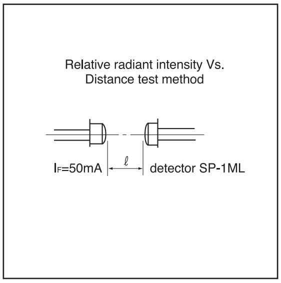


Radiant Pattern



Relative radiant intensity Vs. Distance





Relative radiant intensity Vs.
Distance test method