

# 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**

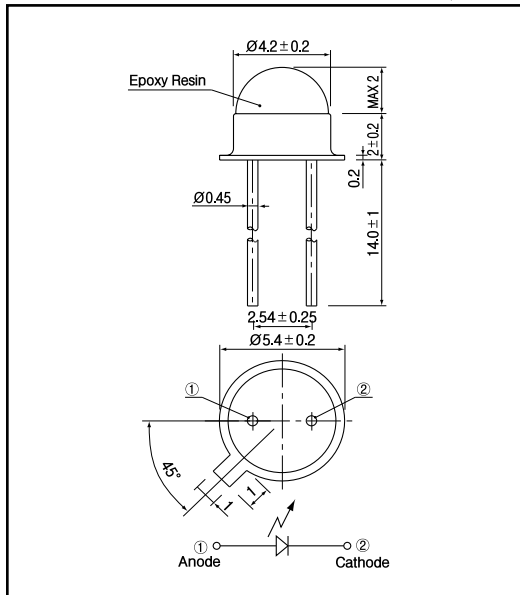
- Wide beam angle
- Relative low cost against metal can package
- Low profile package

**APPLICATIONS**

- Optical switches
- Encoders
- Optical readers

**DIMENSIONS**

(Unit : mm)



**MAXIMUM RATINGS**

(Ta=25 )

Item	Symbol	Rating	Unit
Reverse voltage	V <sub>R</sub>	5	V
Forward current	I <sub>F</sub>	100	mA
Pulse forward current *1	I <sub>FP</sub>	1	A
Power dissipation	P <sub>D</sub>	170	mW
Operating temp.	T <sub>opr.</sub>	- 25 - + 100	
Storage temp.	T <sub>stg.</sub>	- 25 - + 100	
Soldering temp. *2	T <sub>sol.</sub>	260	

\*1. pulse width : tw 100 ꝑec.period : T=10msec.

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

**ELECTRO-OPTICAL CHARACTERISTICS**

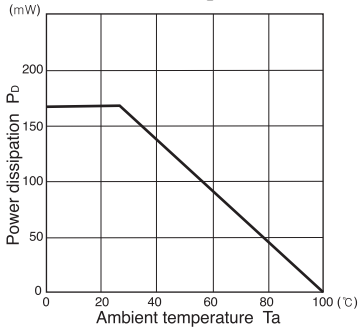
(Ta=25 )

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =50mA		1.2	1.5	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =5V			10	µA
Capacitance	C <sub>t</sub>	f=1MHz		25		pF
Radiant intensity	P <sub>o</sub>	I <sub>F</sub> =50mA		2.7		mW/sr
Peak emission wavelength	ꝑ	I <sub>F</sub> =50mA		940		nm
Spectral bandwidth 50%		I <sub>F</sub> =50mA		50		nm
Half angle				± 32		deg.

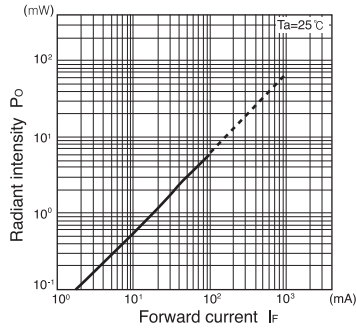
# Infrared Emitting Diodes(GaAs)

## EL - 1 ML2

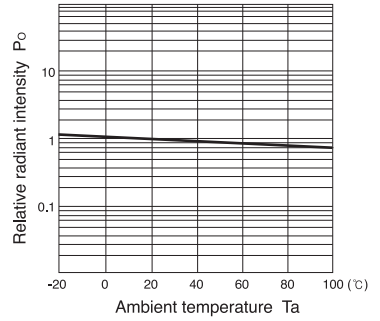
**Power dissipation Vs. Ambient temperature**



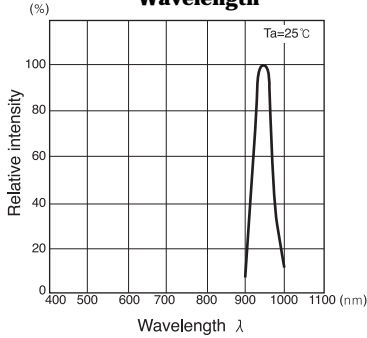
**Radiant intensity Vs. Forward current**



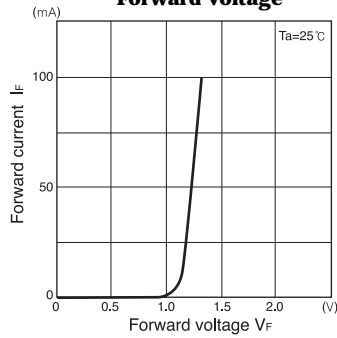
**Relative radiant intensity Vs. Ambient temperature**



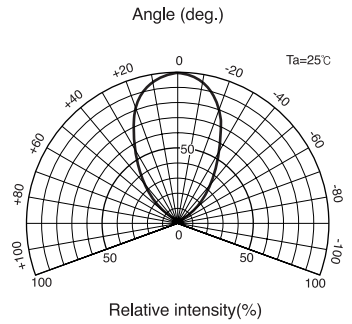
**Relative intensity Vs. Wavelength**



**Forward current vs. Forward voltage**



**Radiant Pattern**



**Relative radiant intensity Vs. Distance**

