

## 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**

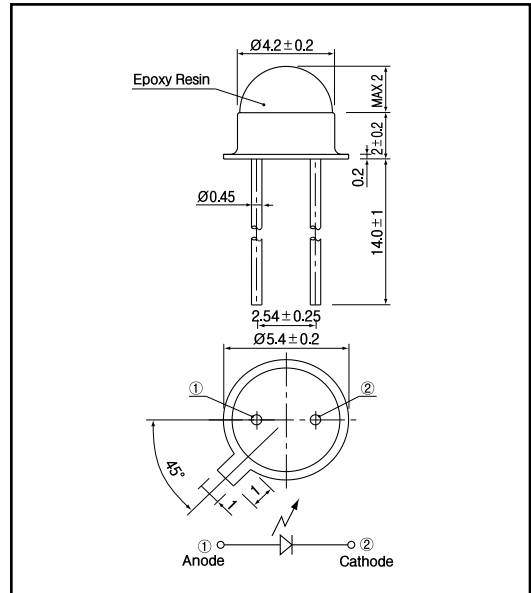
- Wide beam angle
- Relative low cost against metal can package
- Low profile package

**APPLICATIONS**

- Optical switches
- Encoders
- Optical readers

**DIMENSIONS**

(Unit : mm)

**MAXIMUM RATINGS**

(Ta=25 °C)

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.	$T_{opr.}$	- 25 ~ + 100	
Storage temp.	$T_{stg.}$	- 25 ~ + 100	
Soldering temp. *2	$T_{sol.}$	260	

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

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

**ELECTRO-OPTICAL CHARACTERISTICS**

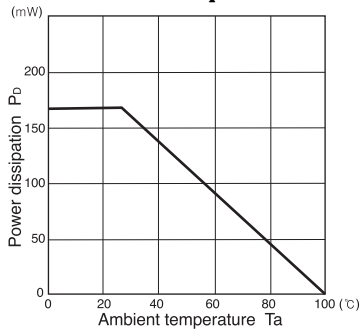
(Ta=25 °C)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Forward voltage	$V_F$	$I_F=50$ mA		1.2	1.5	V
Reverse current	$I_R$	$V_R=5$ V			10	$\mu$ A
Capacitance	$C_t$	$f=1$ MHz		25		pF
Radiant intensity	$P_o$	$I_F=50$ mA		2.7		mW/sr
Peak emission wavelength	$\lambda_p$	$I_F=50$ mA		940		nm
Spectral bandwidth 50%		$I_F=50$ mA		50		nm
Half angle				$\pm 32$		deg.

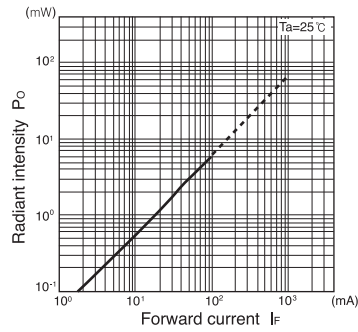
## Infrared Emitting Diodes(GaAs)

EL - 1 ML2

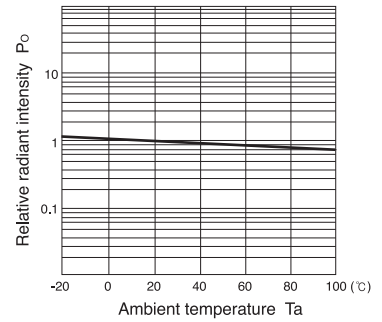
**Power dissipation Vs. Ambient temperature**



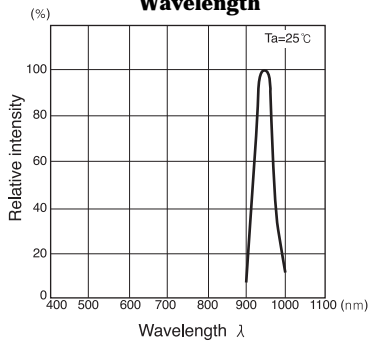
**Radiant intensity Vs. Forward current**



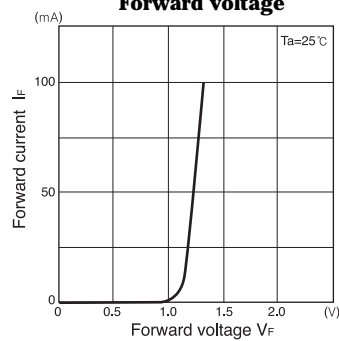
**Relative radiant intensity Vs. Ambient temperature**



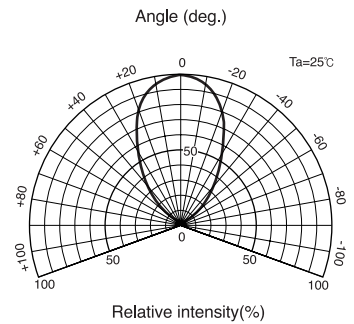
**Relative intensity Vs. Wavelength**



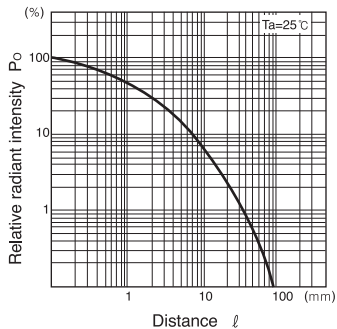
**Forward current vs. Forward voltage**



**Radiant Pattern**



**Relative radiant intensity Vs. Distance**



Relative radiant intensity Vs. Distance test method

