

EL - 313

The EL - 313 is a high - power GaAs IRED mounted in a clear side - viewing package. This IRED is both compact and easy to mount.

FEATURES

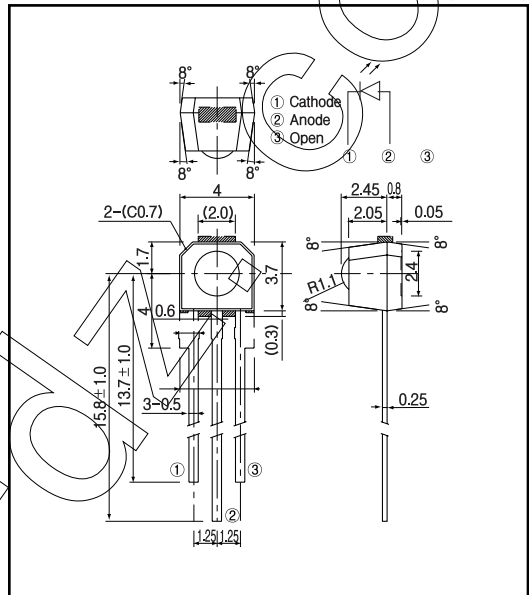
- Compact plastic mold type

APPLICATIONS

- Optical switches
- Transmission sensors

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta=25°C)

Item	Symbol	Rating	Unit
Reverse voltage	V_R	4	V
Forward current	I_F	50	mA
Power dissipation	P_D	100	mW
Pulse forward current ^{*1}	I_{FP}	1	A
Operating temp.	$T_{opr.}$	-20 +85	°C
Storage temp.	$T_{stg.}$	-30 +85	°C
Soldering temp. ^{*2}	$T_{sol.}$	240	°C

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

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

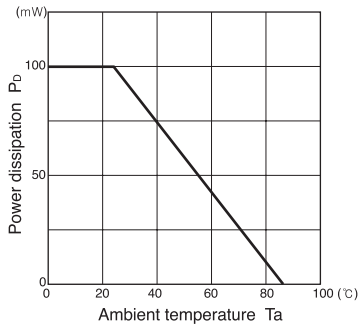
ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25°C)

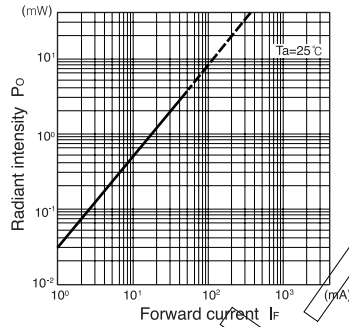
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Forward voltage	V_F	$I_F = 30\text{mA}$		1.2	1.5	V
Reverse current	I_R	$V_R = 4\text{V}$			10	μA
Peak emission wavelength	λ_P	$I_F = 20\text{mA}$		940		nm
Radiant intensity ^{*3}	P_O	$I_F = 30\text{mA}$		2.0		mW
Half angle	$\Delta \theta$			±20		deg.

*3. Exclusive P- is used as detector

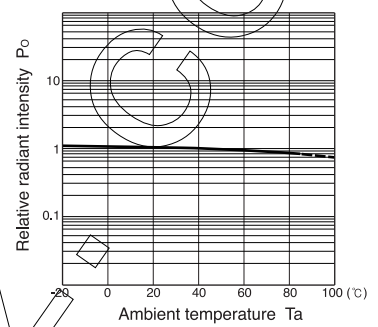
Power dissipation Vs. Ambient temperature



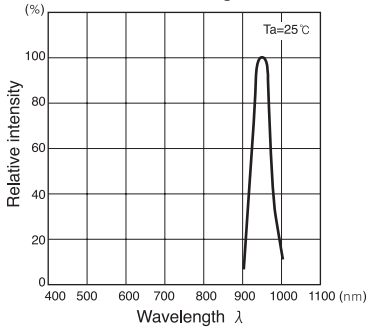
Radiant intensity Vs. Forward current



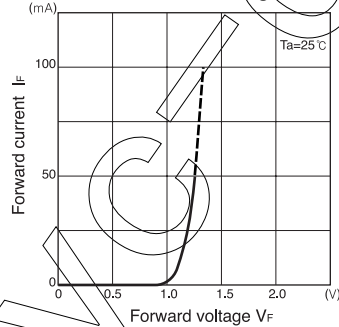
Relative radiant intensity Vs. Ambient temperature



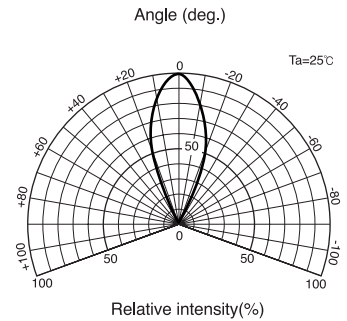
Relative intensity Vs. Wavelength



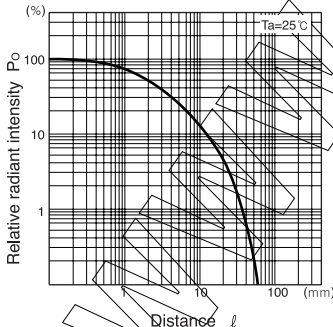
Forward current vs. Forward voltage



Radiant Pattern



Relative radiant intensity Vs. Distance



Relative radiant intensity Vs. Distance test method

