

EL - 314

The EL - 314 a high - power GaAs IRED mounted in a clear sidelooking package, is compact, low profile, and easy to mount.

FEATURES

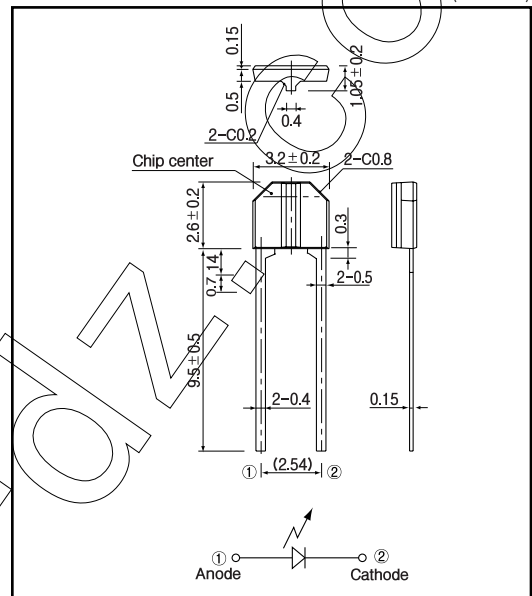
- Compact
- Low profile package
- Low - cost
- Sidelooking plastic package

APPLICATIONS

- Photointerrupters
- Optical switches
- Toys

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta=25°C)

Item	Symbol	Rating	Unit
Reverse voltage	V_R	5	V
Forward current	I_F	50	mA
Pulse forward current ^{*1}	I_{FP}	0.5	A
Power dissipation	P_D	75	mW
Operating temp.	$T_{opr.}$	- 25 ~ +85	°C
Storage temp.	$T_{stg.}$	- 30 ~ +100	°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

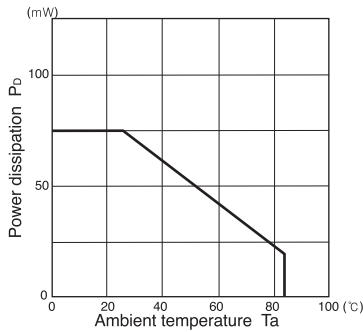
(Ta=25°C)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Forward voltage	V_F	$I_F = 50\text{mA}$			1.6	V
Reverse current	I_R	$V_R = 5\text{V}$			10	μA
Capacitance	C_t	$f = 1\text{MHz}$		25		pF
Radiant intensity	P_D	$I_F = 50\text{mA}$		0.7		mW/sr
Peak emission wavelength	λ_p	$I_F = 50\text{mA}$		940		nm
Spectral bandwidth 50%	$\Delta \lambda$	$I_F = 50\text{mA}$		50		nm
Half angle	$\Delta \theta$			±30		deg.

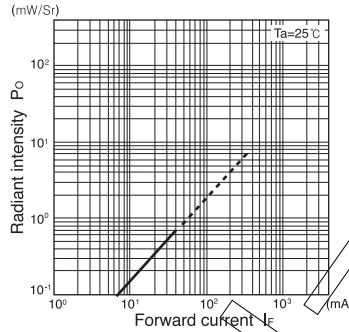
Infrared Emitting Diodes(GaAs)

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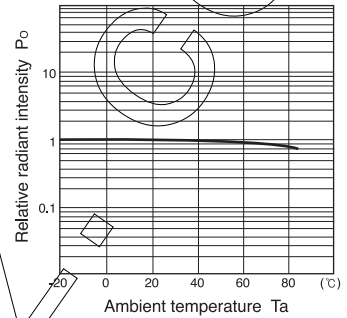
Power dissipation Vs. Ambient temperature



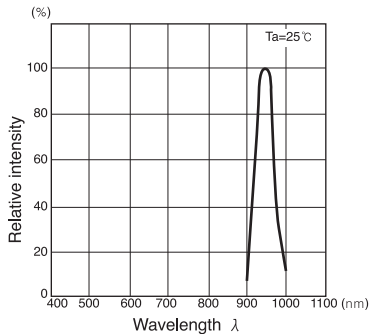
Radiant intensity Vs. Forward current



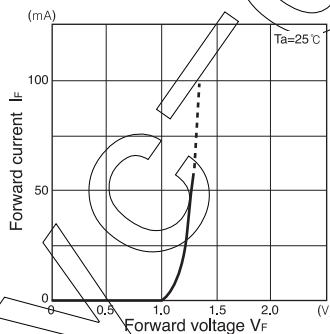
Relative radiant intensity Vs. Ambient temperature



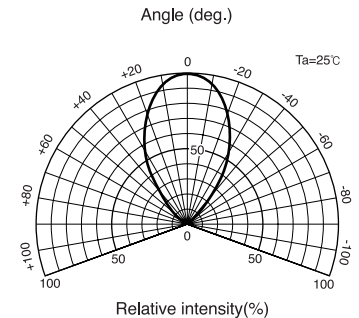
Relative intensity Vs. Wavelength



Forward current vs. Forward voltage



Radiant Pattern



Relative radiant intensity Vs. Distance

