

# Infrared Emitting Diodes(GaAs)

KODENSHI

## EL - 316

The EL - 316 is a high - power GaAs IRED mounted in a clear epoxy package.

### FEATURES

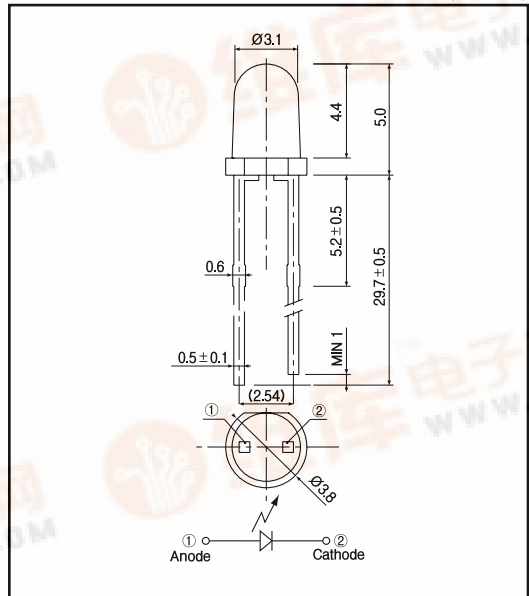
- $\phi 3$  casting mold type
- High output power

### APPLICATIONS

- VTR
- Optical remote controllers
- Transmission sensors

### DIMENSIONS

(Unit : mm)



### MAXIMUM RATINGS

( $T_a=25$ )

Item	Symbol	Rating	Unit
Reverse voltage	$V_R$	4	V
Forward current	$I_F$	60	mA
Power dissipation	$P_D$	80	mW
Pulse forward current <sup>**1</sup>	$I_{FP}$	0.5	A
Operating temp.	$T_{opr.}$	- 25 + 80	
Storage temp.	$T_{stg.}$	- 40 + 85	
Soldering temp. <sup>**2</sup>	$T_{sol.}$	240	

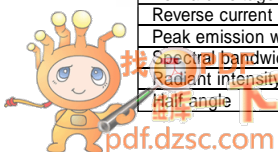
\*1. pulse width :  $t_w$  100  $\mu$ sec, period :  $T=10$ msec.

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

### ELECTRO-OPTICAL CHARACTERISTICS

( $T_a=25$ )

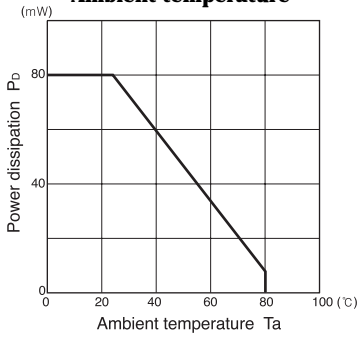
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Forward voltage	$V_F$	$I_F=40$ mA		1.2	1.5	V
Reverse current	$I_R$	$V_R=4$ V			10	$\mu$ A
Peak emission wavelength	$\lambda_p$	$I_F=40$ mA		940		nm
Spectral bandwidth		$I_F=40$ mA		50		nm
Radiant intensity	PO	$I_F=40$ mA	10	20		mW/sr
Half angle				$\pm 17$		deg.



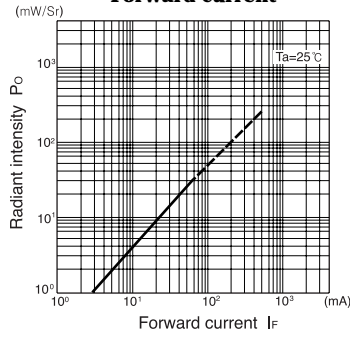
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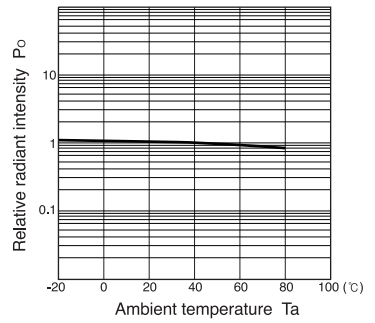
**Power dissipation Vs. Ambient temperature**



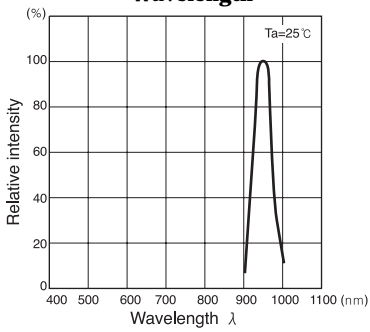
**Radiant intensity Vs. Forward current**



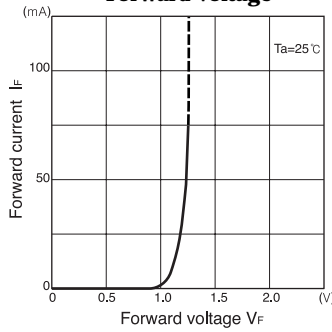
**Relative radiant intensity Vs. Ambient temperature**



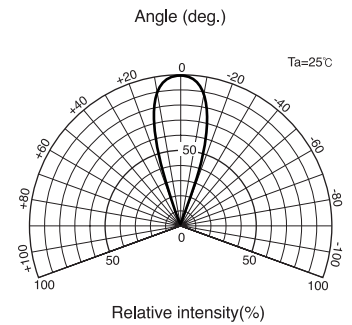
**Relative intensity Vs. Wavelength**



**Forward current vs. Forward voltage**



**Radiant Pattern**



**Relative radiant intensity Vs. Distance**

