

# KEL1001L

The KEL1001L, high-power GaAs IRED mounted in a clear side-looking package, is compact, narrow radiant angle, and easy to mount.

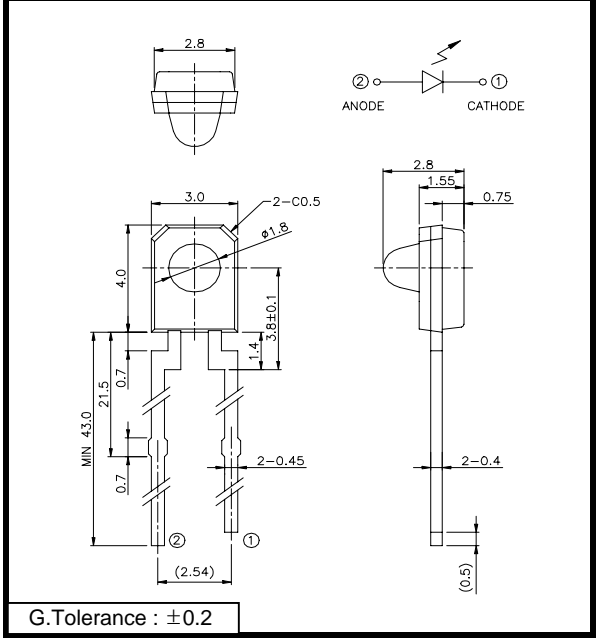
**Features**

- High power with narrow radiant angle
- Side-looking with plastic package
- RoHS Compliant

**Applications**

- Photointerrupter
- Optical switches
- Mouse, toys

**Dimensions** [Unit : mm]



**Absolute Maximum Ratings**

[T<sub>A</sub> = 25 °C]

Parameter	Symbol	Rating	Unit
Forward Current	I <sub>F</sub>	50	mA
Reverse Voltage	V <sub>R</sub>	5	V
Pulse Forward Current* <sup>1</sup>	I <sub>FP</sub>	1	A
Power Dissipation	P <sub>D</sub>	100	mW
Operating Temperature	T <sub>opr.</sub>	-25~+85	°C
Storage Temperature	T <sub>stg.</sub>	-30~+100	°C
Soldering Temperature* <sup>2</sup>	T <sub>sol</sub>	260	°C

\*1. Pulse width tw=100µsec, cycle T=10msec  
 \*2. Distance from end of the package =2mm, time=5sec, Max.

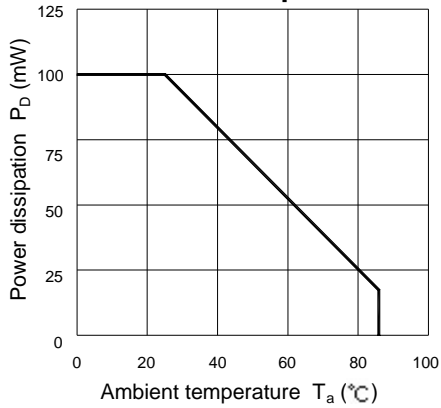
**Electro-Optical Characteristics**

[T<sub>A</sub> = 25 °C]

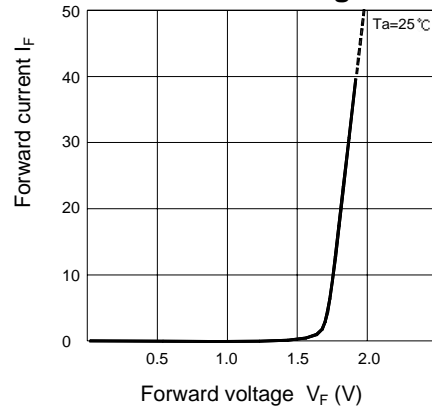
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20mA	-	1.2	2.0	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V	-	-	100	µA
Capacitance	C <sub>T</sub>	f=1MHz	-	25	-	pF
Radiant intensity	P <sub>O</sub>	I <sub>F</sub> =20mA	-	5	-	mW/sr
Peak Wavelength	λ <sub>p</sub>	I <sub>F</sub> =20mA	-	940	-	nm
Spectral Width at FWHM	Δλ		-	50	-	nm
Half Angle	Δθ		-	10	-	degrees

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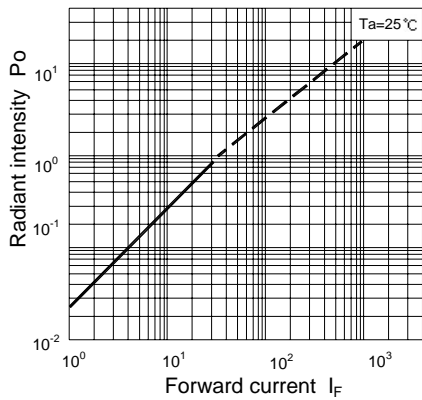
**Power dissipation Vs. Ambient temperature**



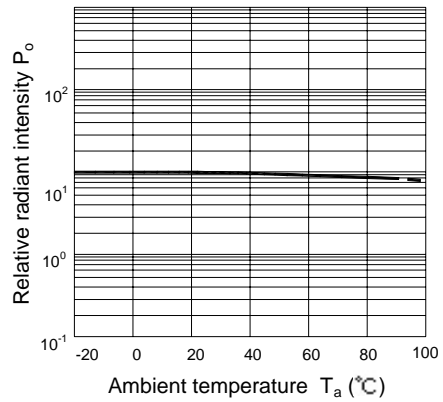
**Forward current Vs. Forward voltage**



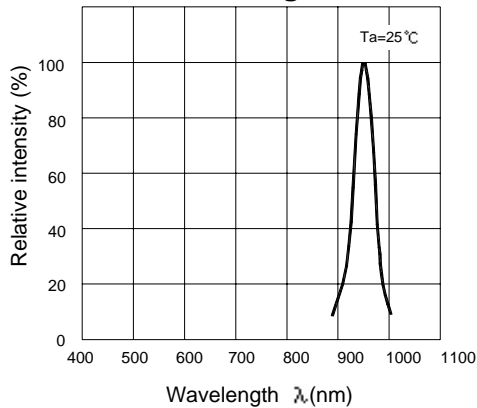
**Radiant intensity Vs. Forward current**



**Relative radiant intensity Vs. Ambient temperature**



**Relative intensity Vs. Wavelength**



**Sensitivity Diagram Angular Displacement**

