Infrared Emitting Diode(GaAs)

KEL1001L

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

Features

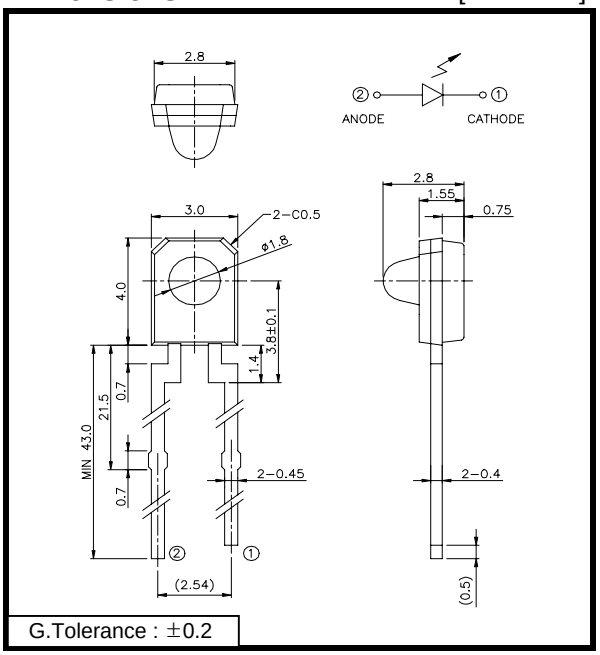
- High power with narrow radiant angle
- Side-looking with plastic package
- RoHS Compliant

Applications

- Photointerrupter
- Optical switches
- Mouse, toys

Dimensions

[Unit : mm]



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Absolute Maximum Ratings

[T_A = 25℃]

Parameter	Symbol	Rating	Unit
Forward Current	I_F	50	mA
Reverse Voltage	V_R	5	V
Pulse Forward Current*1	I_{FP}	1	A
Power Dissipation	P_D	100	mW
Operating Temperature	Topr.	-25~+85	℃
Storage Temperature	Tstg.	-30~+100	℃
Soldering Temperature*2	Tsol	260	℃

*1. Pulse width tw=100μsec, cycle T=10msec

*2. Distance from end of the package =2mm, time=5sec, Max.

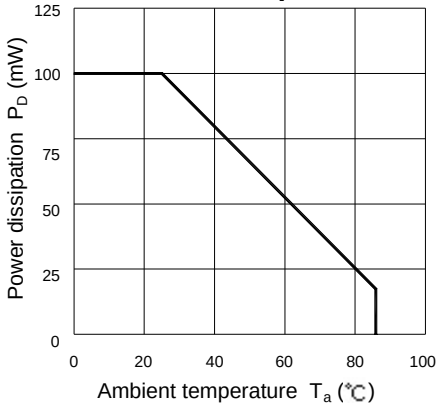
Electro-Optical Characteristics

[T_A = 25℃]

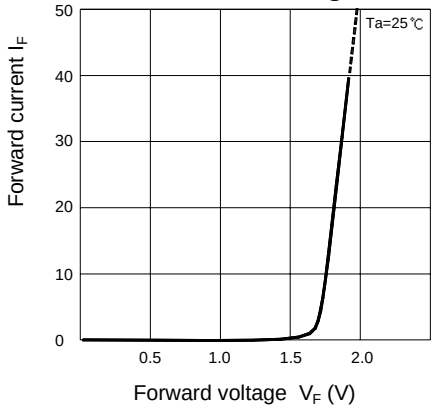
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Forward Voltage	V_F	I_F=20㎃	-	1.2	2.0	V
Reverse Current	I_R	V_R=5V	-	-	100	μA
Capacitance	C_T	f=1㎒	-	25	-	㎊
Radiant intensity	P_O	I_F=20㎃	-	5	-	㎽/sr
Peak Wavelength	λp	I_F=20㎃	-	940	-	nm
Spectral Width at FWHM	△λ		-	50	-	nm
Half Angle	△Θ		-	10	-	degrees

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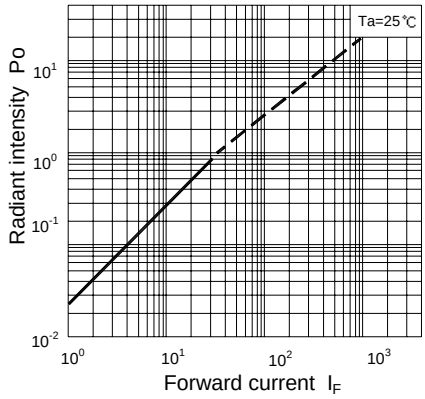
Power dissipation Vs. Ambient temperature



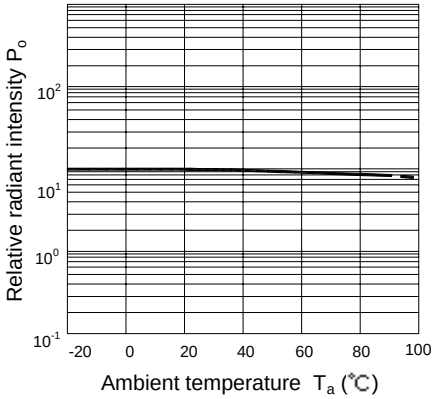
Forward current Vs. Forward voltage



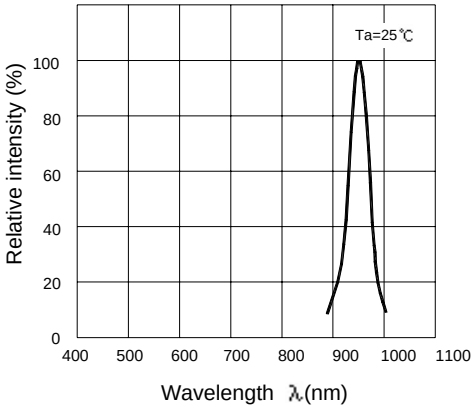
Radiant intensity Vs. Forwardb current



Realtive radiant intensity Vs. Ambient temperature



Relative intensity Vs. Wavelength



Sensitivity Diagram Angular Displacement

