

Infrared Emitting Diode(GaAs)

KODENSHI

KEL1001L

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

Features

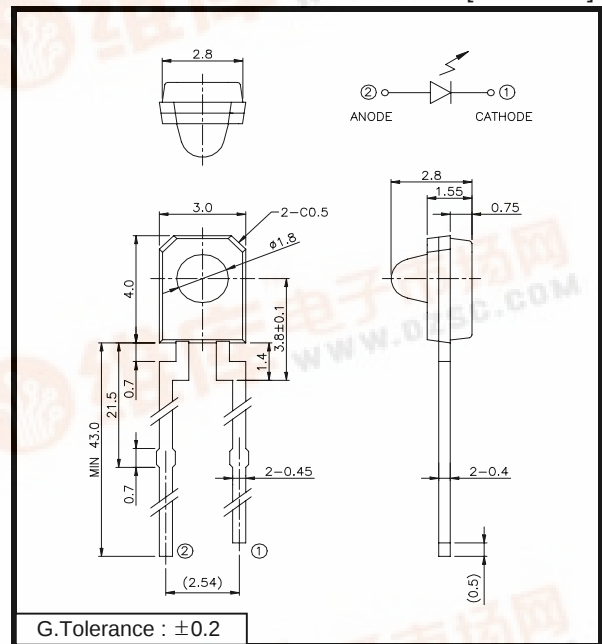
- High power with narrow radiant angle
- Side-looking with plastic package
- RoHS Compliant

Applications

- Photointerrupter
- Optical switches
- Mouse, toys

Dimensions

[Unit : mm]



Absolute Maximum Ratings

$[T_A = 25^\circ\text{C}]$

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	°C
Storage Temperature	Tstg.	-30~+100	°C
Soldering Temperature ^{*2}	Tsol	260	°C

*1. Pulse width $t_w=100\mu\text{sec}$, cycle $T=10\text{msec}$

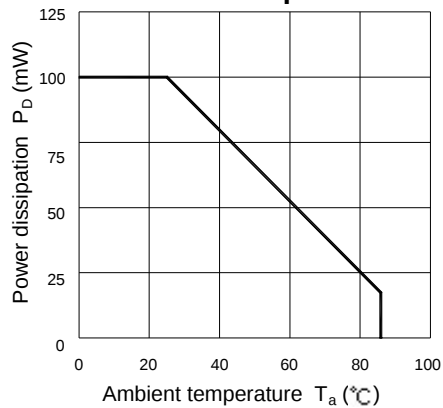
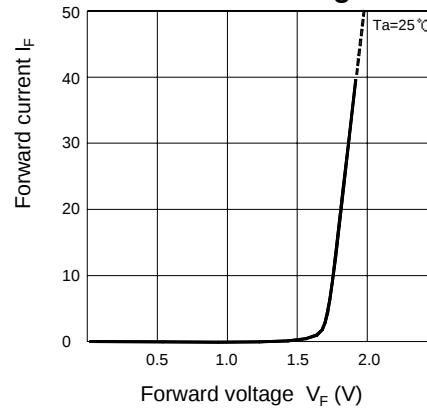
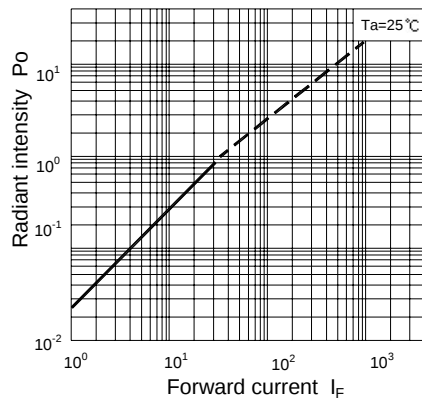
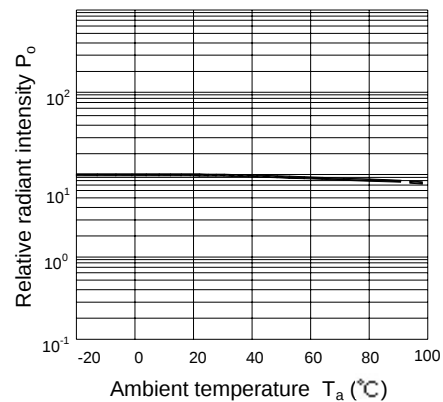
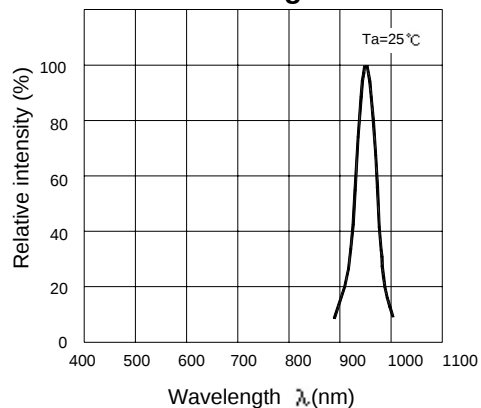
*2. Distance from end of the package =2mm, time=5sec, Max.

Electro-Optical Characteristics

 $[T_A = 25^\circ\text{C}]$

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

KEL1001L

Power dissipation Vs.
Ambient temperatureForward current Vs.
Forward voltageRadiant intensity Vs.
Forward currentRelative radiant intensity
Vs. Ambient temperatureRelative intensity Vs.
WavelengthSensitivity Diagram
Angular Displacement