

NJL1121F

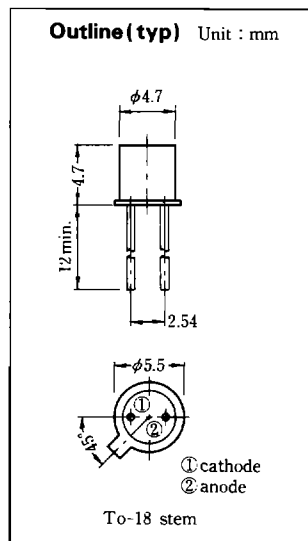
■ Features

- High-output high-speed infrared emitting device using GaAlAs(Si)
- High response speed equivalent* to about 2 times that of conventional products.
- High reliability with a metal package.
- With NJL611B, NJL612B, NJL721B, NJL722B, NJL7260B and NJL811B combined, this device is the most suitable for card readers and other information units, fardistance photoelectric switches, tachometers, smoke sensor, and etc.

■ Absolute Maximum Ratings (Ta=25°C)

Forward Current (Continuous)	I_F	100mA
Pulse Forward Current	I_{FP}	1A (note)
Reverse Voltage (Continuous)	V_R	6V
Power Dissipation	P_D	170mW
Operating Temperature	T_{opr}	-40°C to +100°C
Storage Temperature	T_{stg}	-55°C to +125°C

(note) Pulse Width: 100 μ s. Duty Ratio: 0.01



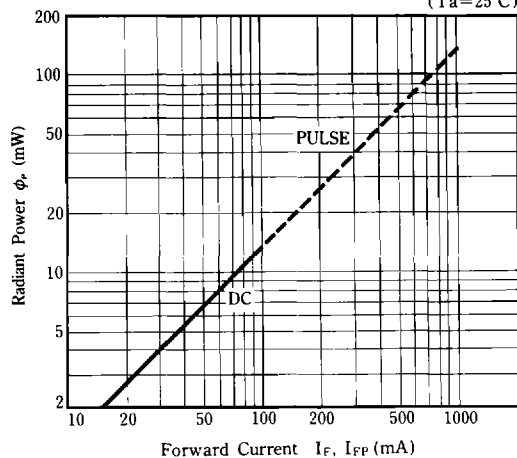
■ Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Radiant Power	ϕ_e	$I_F=50mA$	—	6.5	—	mW
Spectral Line Halfwidth	$\Delta\lambda$	$I_F=50mA$	—	75	—	nm
Forward Voltage	V_F	$I_F=50mA$	—	1.28	—	V
Reverse Current	I_R	$V_R=6V$	—	—	1	μ A
Capacitance	C_t	$V_R=0V, f=1MHz$	—	25	—	pF
Fall Time	t_f	$I_F=50mA$	—	500	—	ns
Rise Time	t_r	$I_F=50mA$	—	500	—	ns
Peak Wavelength	λ_p	$I_F=50mA$	—	900	—	nm

■ Typical Characteristics

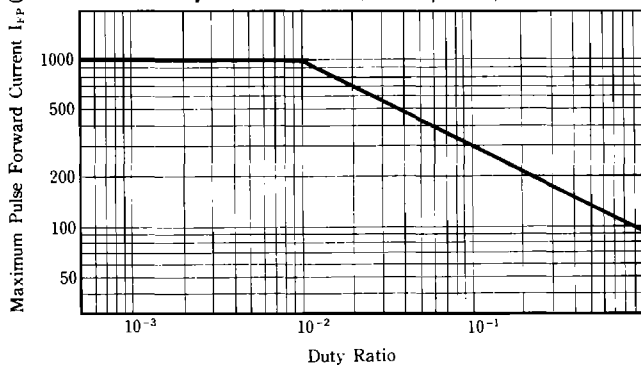
Radiant Power v.s. Forward Current

(Ta=25°C)

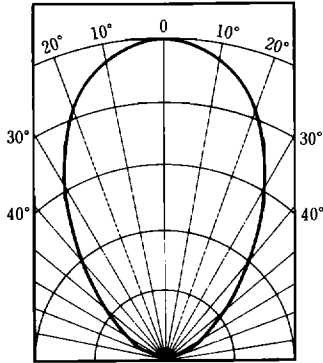


Maximum Pulse Forward Current v.s. Duty Ratio

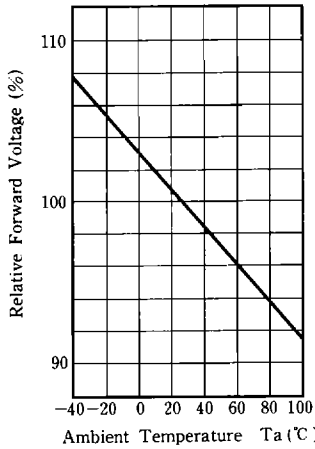
(Ta=25°C, tw=100 μ s max.)



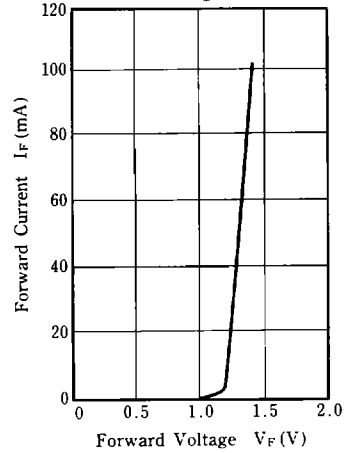
Typical Radiation Pattern
($T_a=25^\circ\text{C}$)



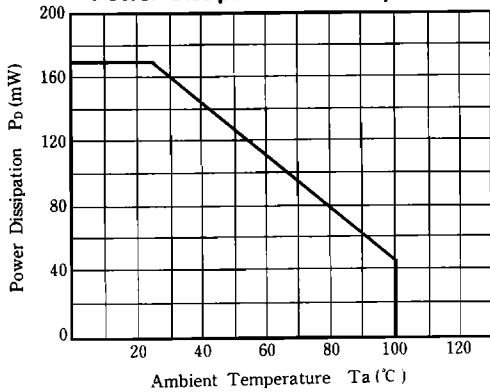
Forward Voltage v.s. Temperature



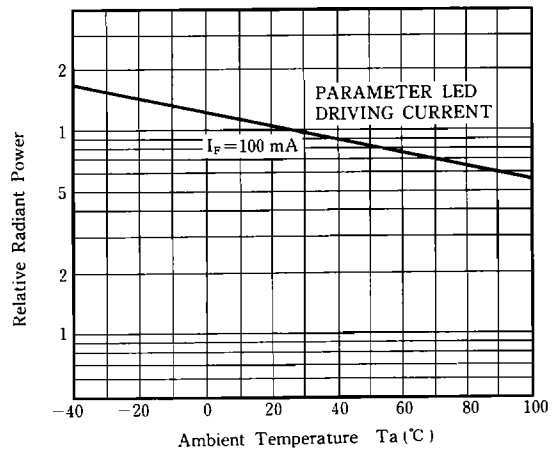
Forward Current v.s. Forward Voltage ($T_a=25^\circ\text{C}$)



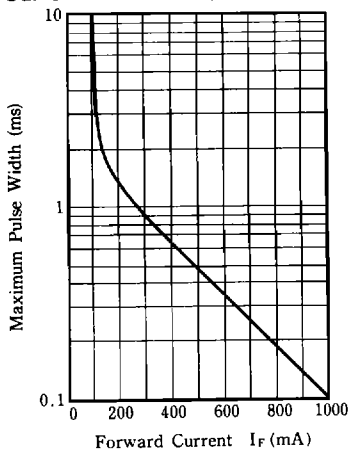
Power Dissipation v.s. Temperature



Relative Radiant Power v.s. Temperature



Maximum Pulse Width v.s. Forward Current
($T_a=25^\circ\text{C}$, Duty Ratio 0.01 max.)



Relative Intensity v.s. Wavelength

