

NJL1120L

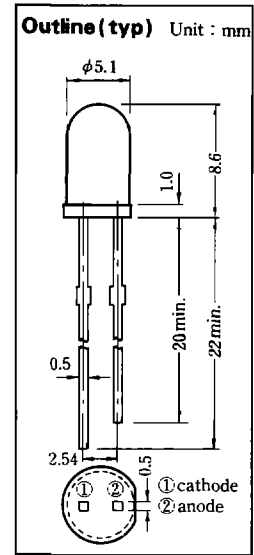
■ Features

- High-output high-speed infrared emitting device using GaAlAs(Si)
- High-output equivalent to about 2 times that of conventional products owing to the use of GaAlAs chip
- High response speed equivalent to about 2 times that of conventional products
- With NJL6144L and NJL6145L combined, this fully molded package product is the most suitable as a remote control infrared light-emitting device.

■ 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}	-20°C to +90°C
Storage Temperature	T_{stg}	-30°C to +100°C
Lead Soldering Temperature	T_{sol}	260°C (10 sec. 1.5 mm from body)

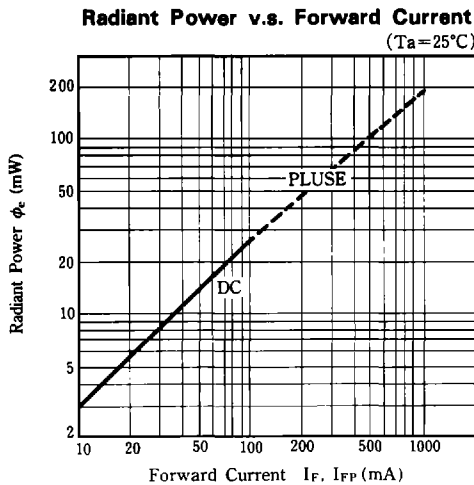
(note) Pulse Width: 100 μ s. Duty Ratio: 0.01



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

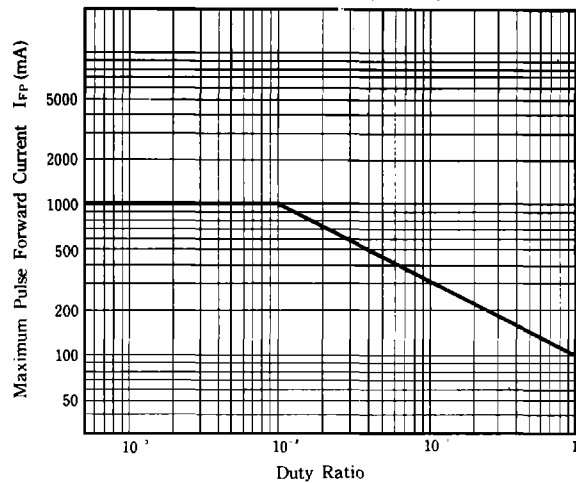
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Radiant Intensity	I_e	$I_F = 50mA$	—	14	—	mW/sr
Radiant Power	ϕ_e	$I_F = 50mA$	—	15	—	mW
Spectral Line Halfwidth	$\Delta\lambda$	$I_F = 50mA$	—	75	—	nm
Forward Voltage	V_F	$I_F = 50mA$	—	1.28	—	V
Reverse Current	I_R	$V_R = 6V$	—	—	1	μ A
Capacitance	C_t	$V_R = 0V, f = 1MHz$	—	25	—	pF
Rise Time	t_r	$I_F = 50mA$	—	500	—	ns
Fall Time	t_f	$I_F = 50mA$	—	500	—	ns
Peak Wavelength	λ_p	$I_F = 50mA$	—	900	—	nm

■ Typical Characteristics



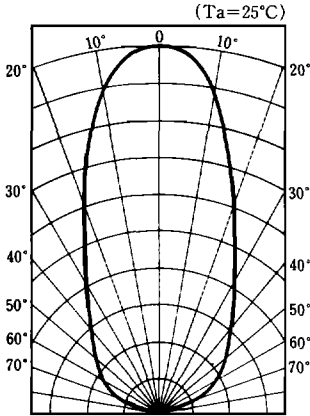
Maximum Pulse Forward Current v.s. Duty Ratio

(Ta=25°C, $t_w = 100\mu s$ max.)

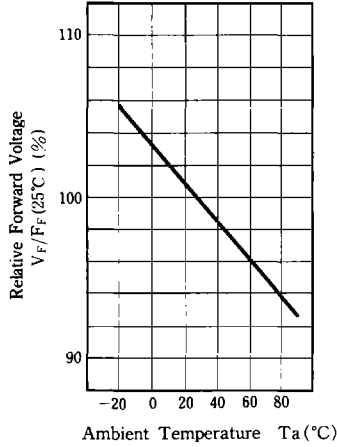


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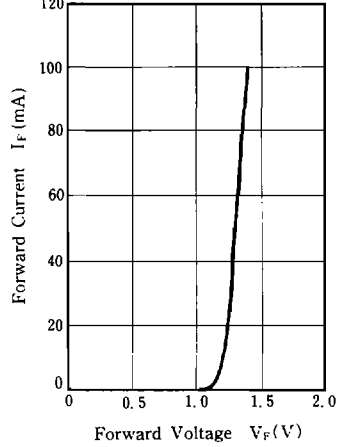
Typical Radiation Pattern



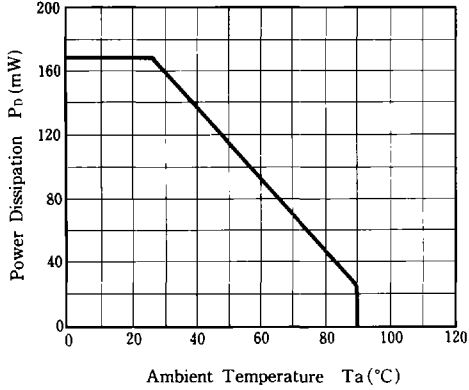
Forward Voltage v.s. Temperature



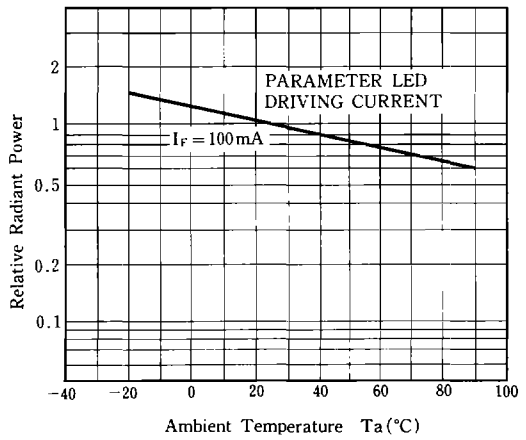
Forward Current v.s. Forward Voltage ($T_a=25^\circ$)



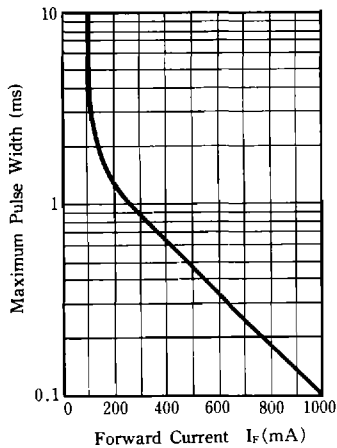
Power Dissipation v.s. Temperature



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

