

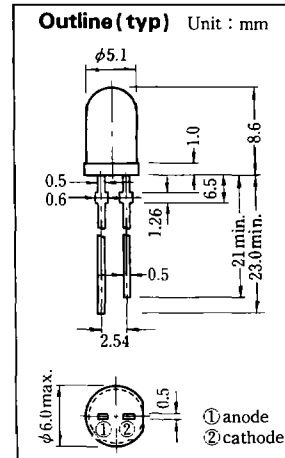
NJL1103L

New JRC NJL1103L is characterized with high luminous power conversion efficiency and wide beam angle and it is the most suitable as infrared remote control for TV, audio units, air conditioners, projectors, etc. with photo diodes NJL6144L, NJL6145L combined.

■ 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	150mW
Operating Temperature	T_{opr}	-20°C to +90°C
Storage Temperature	T_{stg}	-30°C to +100°C

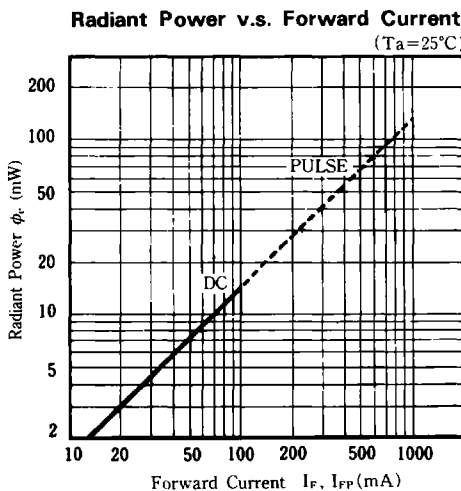
(note) Pulse Width: 100 μ s, Duty Ratio: 0.01



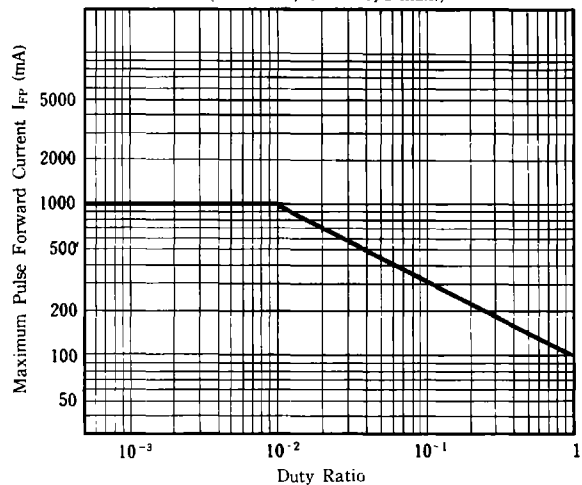
■ Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Radiant Intensity	I_e	$I_F=50mA$	—	11	—	mW/sr
Radiant Power	ϕ_e	$I_F=50mA$	—	7.0	—	mW
Spectral Line Halfwidth	$\Delta\lambda$	$I_F=50mA$	—	50	—	nm
Forward Voltage	V_F	$I_F=50mA$	—	1.2	1.5	V
Reverse Current	I_R	$V_R=6V$	—	—	1	μA
Capacitance	C_t	$V_R=0V, f=1MHz$	—	35	—	pF
Rise Time	t_r	$I_F=50mA$	—	1	—	μs
Fall Time	t_f	$I_F=50mA$	—	1	—	μs
Peak Wavelength	λ_p	$I_F=50mA$	—	940	—	nm

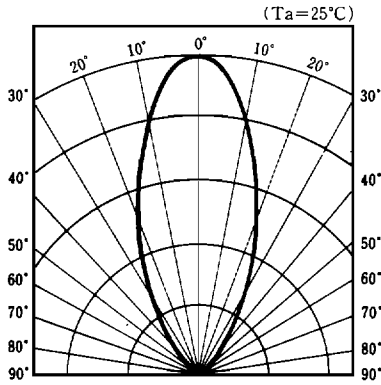
■ Typical Characteristics



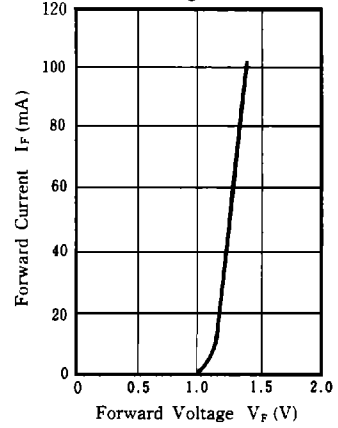
Maximum Pulse Forward Current v.s. Duty Ratio (Ta=25°C, tw=100 μ s max.)



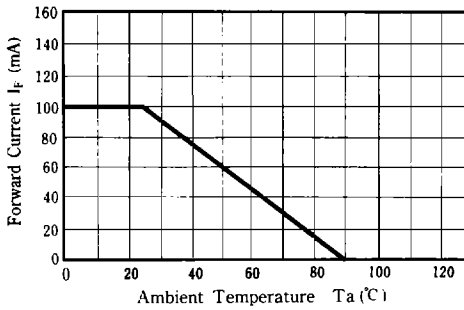
Typical Radiation Pattern



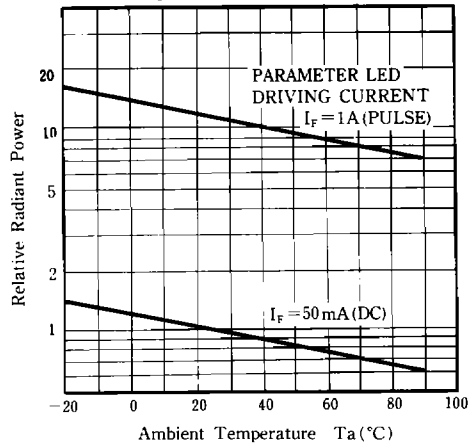
Forward Current v.s. Forward Voltage ($T_a = 25^\circ\text{C}$)



Maximum Forward Current v.s. Temperature

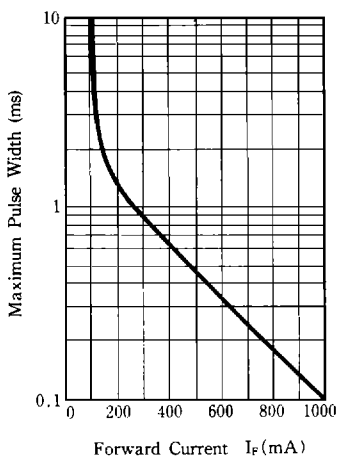


Relative Radiant Power v.s. Temperature



Maximum Pulse Width v.s. Forward Current

($T_a = 25^\circ\text{C}$, Duty Ratio 0.01 max.)



Relative Intensity v.s. Wavelength

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

