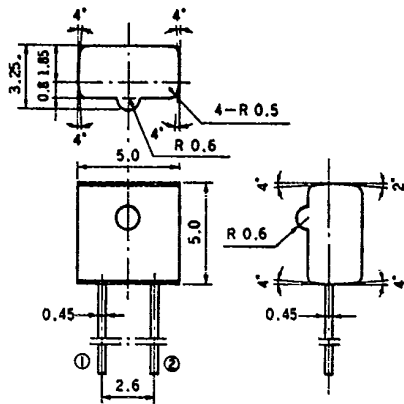


# LIGHT EMITTING DIODE SE306

## GaAs INFRARED EMITTING DIODE

### PACKAGE DIMENSIONS in millimeters



① Cathode  
② Anode



The SE306 is a GaAs(Gallium Arsenide) Infrared LED in a plastic molded package, and very suitable for a detector of a photo interrupter. On forward bias, it emits a spectrally narrow band of radiation peaking at 940 nm.

### ABSOLUTE MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )

Power Dissipation	$P_D$	100	mW
Forward Current	$I_F$	50	mA
Reverse Voltage	$V_R$	5	V
Junction Temperature	$T_j$	100	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-40 to +100	$^\circ\text{C}$

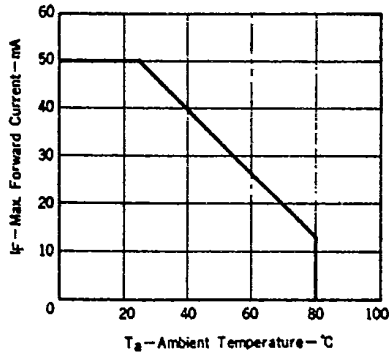
### ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Forward Voltage	$V_F$		1.1	1.4	V	$I_F = 10\text{ mA}$
Reverse Current	$I_R$			10	$\mu\text{A}$	$V_R = 5\text{ V}$
Capacitance	$C_t$		100		pF	$V = 0, f = 1.0\text{ MHz}$
Peak Emission Wavelength	$\lambda_{peak}$		940		nm	$I_F = 10\text{ mA}$
Spectral Line Half Width	$\Delta\lambda$		60		nm	$I_F = 10\text{ mA}$
Output Power	$I_e$	0.2	0.5		mW/sr	$I_F = 10\text{ mA}$

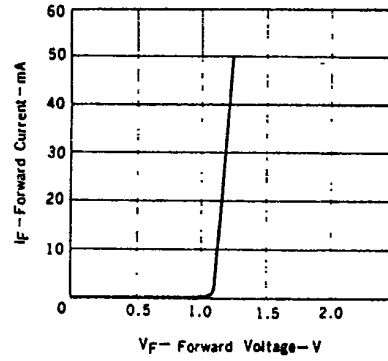
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TYPICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ )

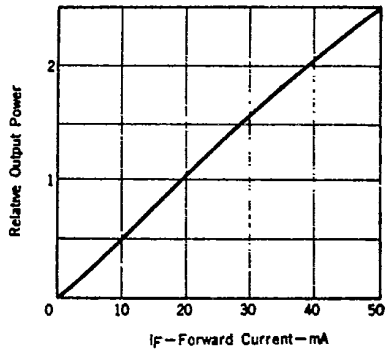
MAX. FORWARD CURRENT vs. AMBIENT TEMPERATURE



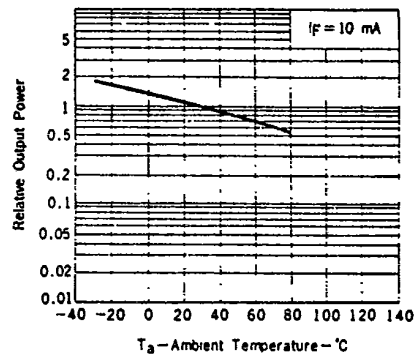
FORWARD CURRENT vs. FORWARD VOLTAGE



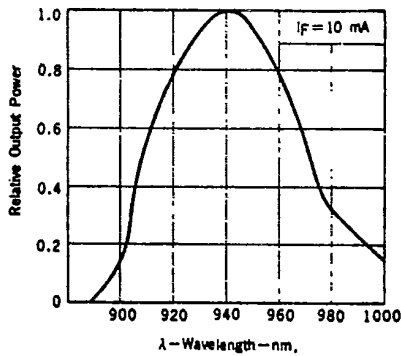
RELATIVE OUTPUT POWER vs. FORWARD CURRENT



RELATIVE OUTPUT POWER vs. AMBIENT TEMPERATURE



SPECTRAL DISTRIBUTION



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