

# GL533

## High Speed Infrared Emitting Diode for Camera AF (Automatic Focusing)

### ■ Features

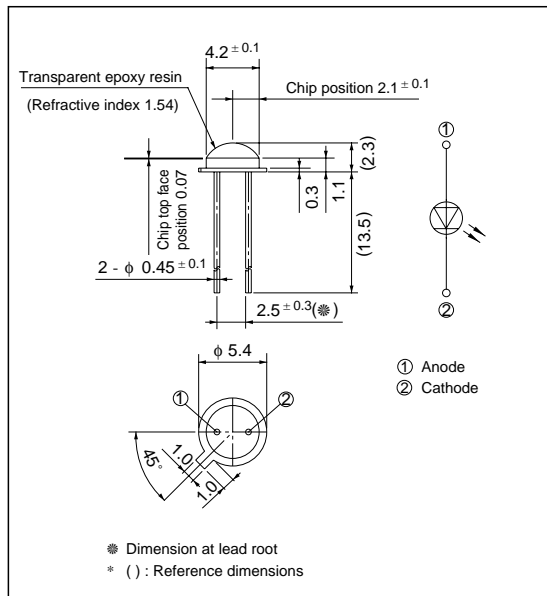
1. Small spot light diameter for easy beam diaphragming  
(TYP. :  $\phi 0.6$  mm)
2. High positional accuracy of optical axis (accuracy :  $\pm 0.1$  mm)
3. High output type (radiant flux  $\Phi_e$  : TYP. 13mW)
4. Low peak forward voltage type  
(peak forward voltage  $V_{FM}$  : TYP. 2.0V)
5. PSD\* Equivalent to peak sensitivity wavelength of detectors  
(PD3101F and PD3151F)  
(peak emission wavelength : TYP. 940 nm)  
PSD\* : Position Sensitive Device

### ■ Applications

1. Cameras

### ■ Outline Dimensions

(Unit : mm)



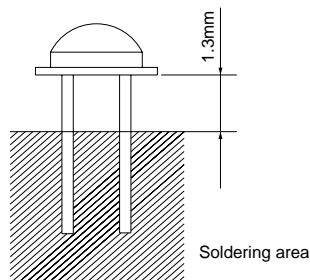
### ■ Absolute Maximum Ratings

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Forward current	$I_F$	80	mA
*1 Peak forward current	$I_{FM}$	1	A
Reverse voltage	$V_R$	6	V
Power dissipation	P	120	mW
Operating temperature	$T_{opr}$	- 25 to +100	°C
Storage temperature	$T_{stg}$	- 30 to +100	°C
*2 Soldering temperature	$T_{sol}$	260	°C

\*1 Pulse width  $\leq 100 \mu s$ , Duty ratio=0.01

\*2 For MAX. 3 seconds at the position of 1.3 mm from the bottom surface of resin

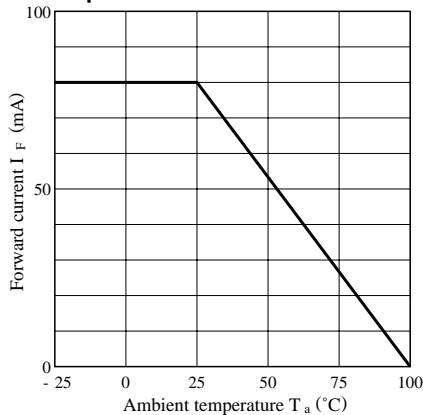


**■ Electro-optical Characteristics**

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

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	$V_F$	$I_F = 50\text{mA}$	-	1.3	1.6	V
Peak forward voltage	$V_{FM}$	$I_{FM} = 0.5\text{A}$	-	2.0	2.9	V
Reverse current	$I_R$	$V_R = 3\text{V}$	-	-	10	$\mu\text{A}$
Radiant flux	$\Phi_e$	$I_F = 50\text{mA}$	8	13	18	mW
Peak emission wavelength	$\lambda_p$	$I_F = 20\text{mA}$	-	940	-	nm
Half intensity wavelength	$\Delta\lambda$	$I_F = 20\text{mA}$	-	60	-	nm
Terminal capacitance	Ct	$V_R = 0, f = 1\text{MHz}$	-	70	-	pF
Response capacitance	fc		-	300	-	kHz

**Fig. 1 Forward Current vs. Ambient Temperature**



**Fig. 2 Peak Forward Current vs. Duty Ratio**

