

GL533

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

■ Features

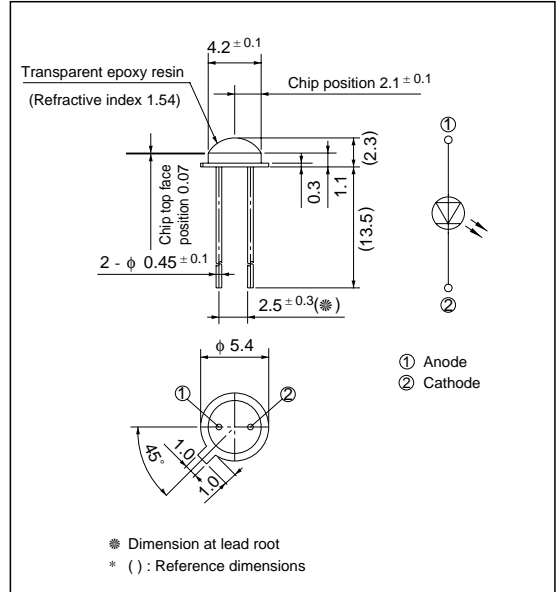
1. Small spot light diameter for easy beam diaphragming
(TYP. : $\phi 0.6$ mm)
2. High positional accuracy of optical axis (accuracy : ± 0.1 mm)
3. High output type (radiant flux Φ_e : TYP. 13mW)
4. Low peak forward voltage type
(peak forward voltage V_{FM} : TYP. 2.0V)
5. PSD* Equivalent to peak sensitivity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

■ Applications

1. Cameras

■ Outline Dimensions

(Unit : mm)



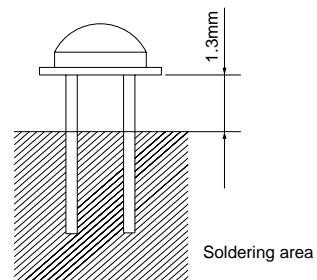
■ Absolute Maximum Ratings

(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	μA
Radiant flux	Φ_e	$I_F = 50\text{mA}$	8	13	18	mW
Peak emission wavelength	λ_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

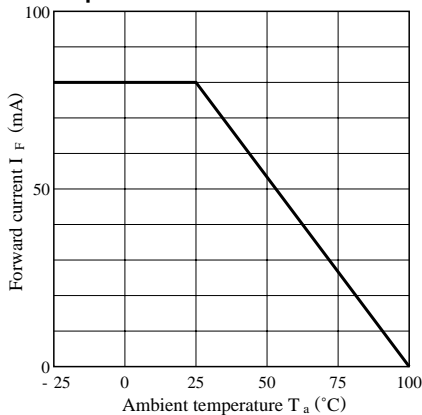
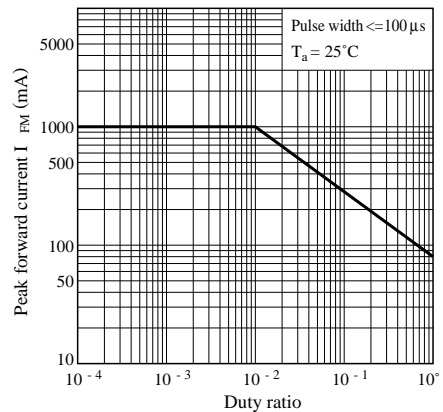


Fig. 2 Peak Forward Current vs. Duty Ratio





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