

GL390/GL390V

Flat Resin Mold Type Infrared Emitting Diode

■ Features

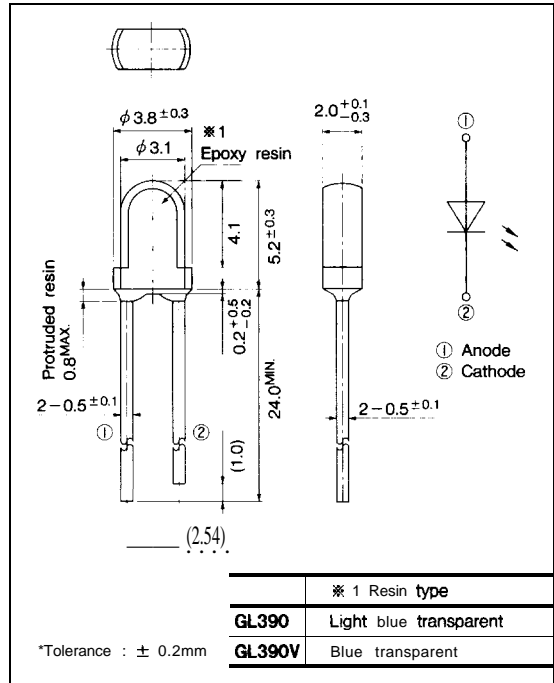
1. Flat, arch type resin mold package
(Resin portion: 2.0mm×3.1mm×5.2mm)
2. Low peak forward voltage (GL390V)
 V_{FM} : TYP. 1.9V at $I_{FM}=0.5A$

■ Applications

1. Camcorders
2. Remote control units

■ Outline Dimensions

(Unit : mm)



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Infrared Emitting Diodes

■ Model Line-ups

Model No.	GL390	GL390V
Radiant intensity	TYP. 13	TYP. 16
Half intensity angle	TYP. ± 18	

■ Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Rating	Unit
Forward current	I_F	60	mA
*1 Peak forward current	I_{FM}	1	A
Reverse voltage	V_R	6	V
Power dissipation	P	150	mW
Operating temperature	T_{opr}	-25 to 85	°C
Storage temperature	T_{stg}	-40 to 85	°C
*2 Soldering temperature	T_{sol}	260	°C

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

*2 For MAX. 5 seconds at the position of 2.6mm from the bottom face of resin package

Electro-optical Characteristics

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

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit	
Forward voltage	V_F	$I_F = 50\text{mA}$		1.3	1.5	v	
Peak forward voltage	GL390	$I_{FM} = 0.5\text{A}$		—	2.2	3.5	v
	GL390V			—	1.9	3.0	
Reverse current	I_R	$V_R = 3\text{V}$			10	μA	
Radiant intensity	GL390	$I_F = 50\text{mA}$		7	13	—	mW/sr
	GL390V			9	16	—	
Peak emission wavelength	λ_P	$I_F = 5\text{mA}$	—	950	—	nm	
Spectrum radiation bandwidth	GL390	$I_F = 5\text{mA}$		—	45	—	'm
	GL390V				45	70	
Terminal capacitance	GL390	$V_R = 0$ $f = 1\text{MHz}$		—	70	—	pF
	GL390V				—	50	
Response frequency	f_c		—	300	—	kHz	
Half intensity angle	$\Delta\theta$	$I_F = 20\text{mA}$	—	± 18	—		

*3 I_E : Value obtained by converting the value in power of radiant fluxes emitted at the solid angle of 0.01sr (steradian) in the direction of mechanical axis of the lens portion into 1sr of all those emitted from the light emitting diode.

Fig. 1 Forward Current vs. Ambient Temperature

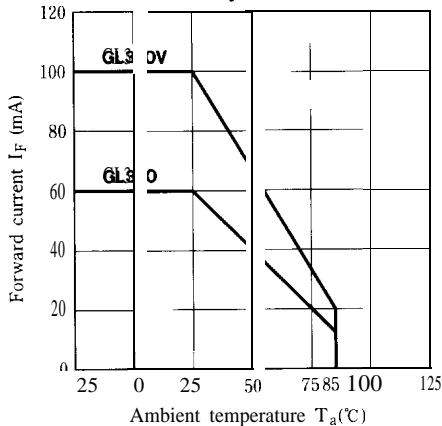
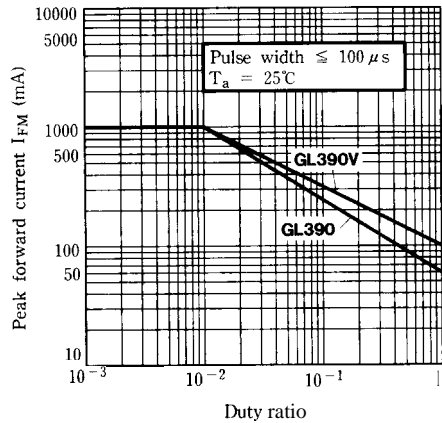


Fig. 2 Peak Forward Current vs. Duty Ratio



● Please refer to the chapter "Precautions for Use." (Page 78 to 93)