Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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GL527V/GL528V

low Peak Forward Voltage Type ϕ5mm Resin Mold Type Infrared Emitting Diode

■ Features

1. Low peak forward voltage (V_{FM} : TYP. 1.6V at I_{FM}=0.5A)
2. ϕ5mm epoxy resin package

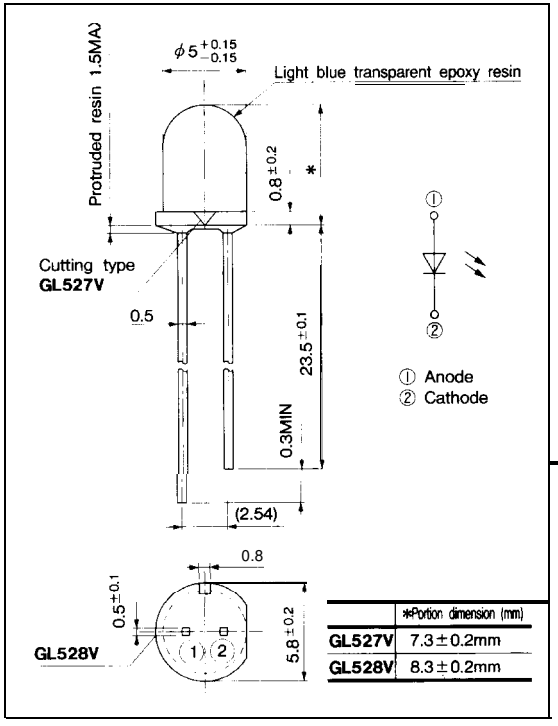
■ Applications

1. Infrared remote controllers for TVs, VCRs, audio equipment and air conditioners

■ Model Line-ups

	GL527V	GL528V
Radiation intensity (TYPmW/sr)	12	23
Half intensity angle (TYP deg)	±21	±13

■ Outline Dimensions (Unit : mm)



■ Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Rating	Unit
Forward current	I_F	100	mA
*1Peak forward current	I_{FM}	1	A
Reverse voltage	V_R	6	v
power dissipation	P	150	mW
Operating temperature	T_{opr}	-25 to +85	℃
Storage temperature	T_{stg}	-40 to +100	℃
*2Soldering temperature	T_{sol}	260	℃

*1Pulse width ≤ 100 μs, Duty ratio= 0.01
*2 For 3 seconds at the position of 2.6mm from the bottom face of resin package.

■ Electro-optical Characteristics (Ta = 25℃)

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage		V_F	I_F=50mA		1.2	1.37	V
Peak forward voltage		V_{FM}	I_{FM}=0.5A	–	1,6	2.5	V
Reverse current		I_R	V_R=3V		–	10	μA
Radiation intensity	GL527V	I_E	I_F=50mA	5	12	–	mW/sr
	GL528V			12	23	–	
Peak emission wavelength		λp	I_F=5mA	–	940	–	nm
Half intensity wavelength		AL	I_F=5mA	–	45		nm
Terminal capacitance		C_t	V_R=0, f=1MHz	–	50	–	pF
Response frequency		fc		–	300	–	kHz
Half intensity angle	GL527V	Δθ	I_F= 20mA	–	±21	–	°
	GL528V			–	±13	–	

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

Fig. 1 Forward Current vs. Ambient Temperature

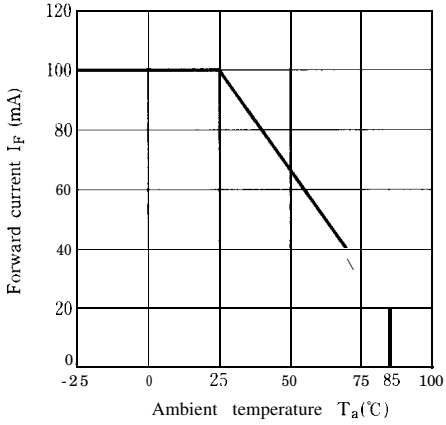


Fig. 2 Peak Forward Current vs. Duty Ratio

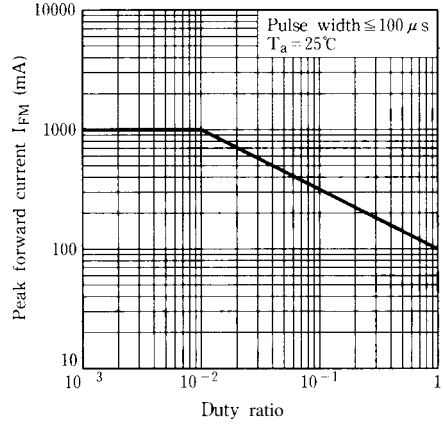


Fig. 3 Spectral Distribution

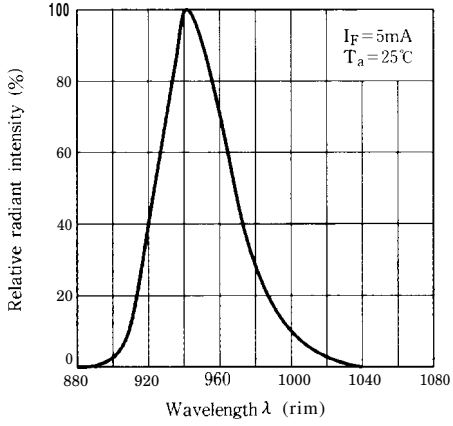


Fig. 4 Peak Emission Wavelength vs. Ambient Temperature

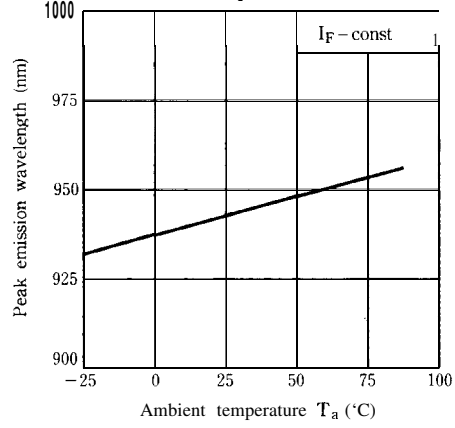


Fig. 5 Forward Current vs. Forward Voltage

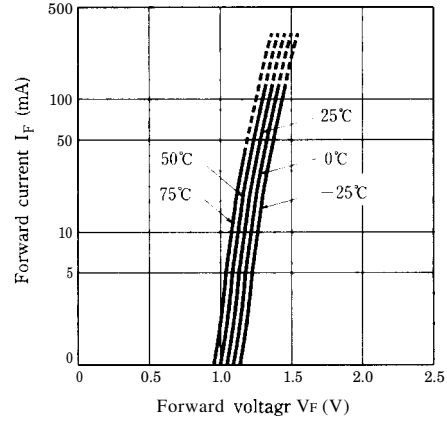


Fig. 6 Relative Forward Voltage ve. Ambient Temperature

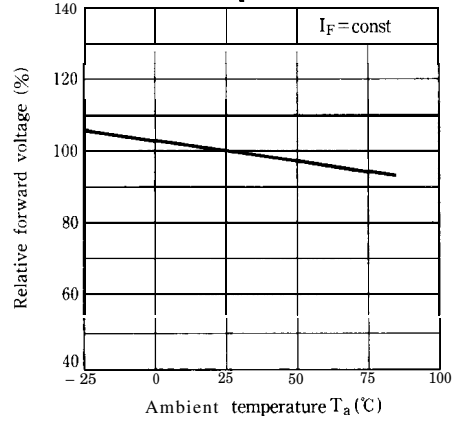


Fig. 7 Relative Output vs. Ambient Temperature (Detector : PD410PI)

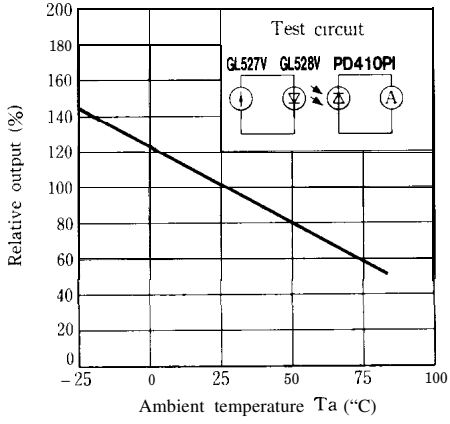


Fig. 8 Radiation Intensity vs. Peak Forward Current

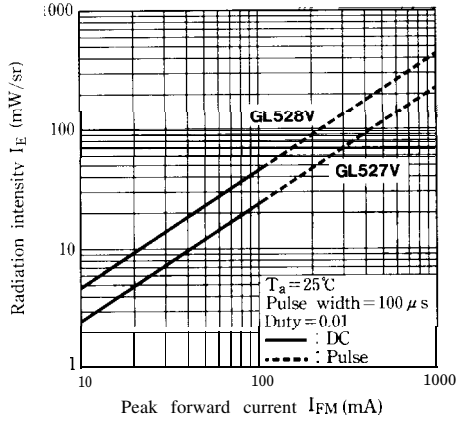


Fig. 9 Relative Collector Current vs. Distance (Detector : PD410PI)

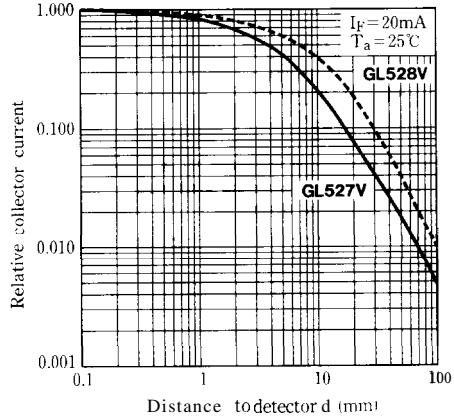


Fig.10 Relative Collector Current vs. Distance (Detector : PD49PI)

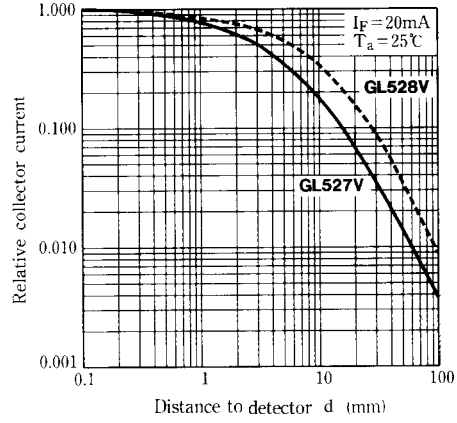


Fig.11-a Radiation Diagram (GL527V)

(Ta = 25°C)

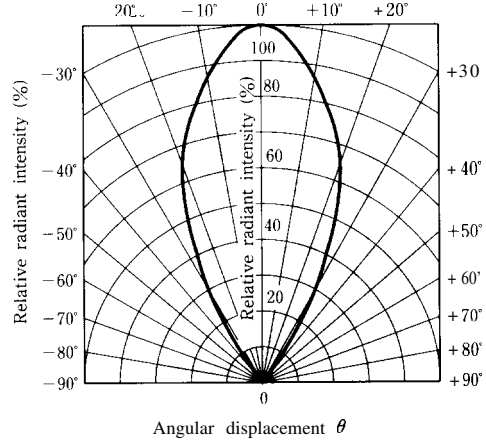
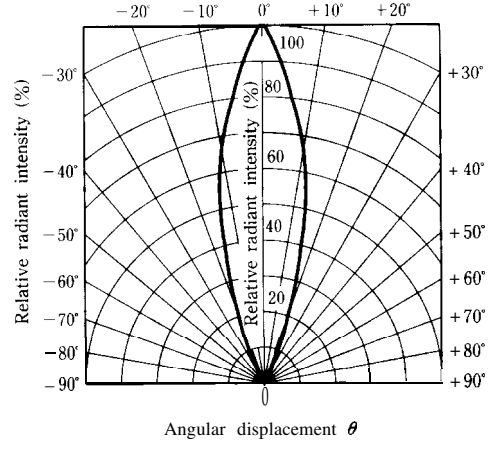


Fig.11-b Radiation Diagram (GL528V)

(Ta = 25°C)



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