



## GL8PR28 (Red) / GL8HD28 (Red)

## ■ Electro-optical Characteristics

(Ta = 25°C)

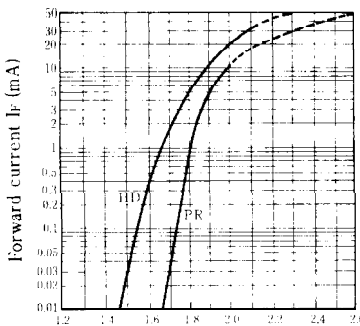
Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	$V_F$	GL8PR28	$I_F = 5\text{mA}$	—	1.9	2.3	V
		GL8HD28	$I_F = 20\text{mA}$		2.0	2.8	
*3 Luminous intensity	$I_V$	GL8PR28	$I_F = 5\text{mA}$	0.45	0.9	—	mcd
		GL8HD28	$I_F = 20\text{mA}$	2.5	6.0	—	
Peak emission wavelength	$\lambda_p$	GL8PR28	$I_F = 5\text{mA}$		695	—	nm
		GL8HD28	$I_F = 20\text{mA}$	—	635	—	
Spectrum radiation bandwidth	$\Delta\lambda$	GL8PR28	$I_F = 5\text{mA}$		100	—	nm
		GL8HD28	$I_F = 20\text{mA}$	—	35	—	
Reverse current	$I_R$	GL8PR28	$V_R = 4\text{V}$			10	$\mu\text{A}$
		GL8HD28	$V_R = 4\text{V}$			—	
Terminal capacitance	$C_t$	GL8PR28	$V = 0\text{V}$ $f = 1\text{MHz}$	—	55	—	pF
		GL8HD28	$V = 0\text{V}$ $f = 1\text{MHz}$	—	20	—	
Response, frequency	$f_c$	GL8PR28	—		4	—	kHz
		GL8HD28	—			4	

\*3 Tolerance.  $\pm 30\%$ 

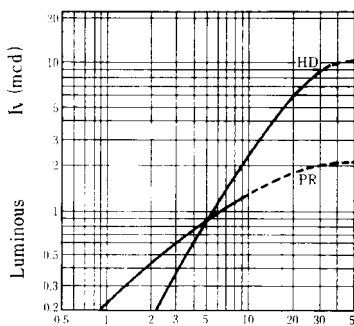
## ■ Characteristics Diagrams

Forward Current vs.  
Forward Voltage

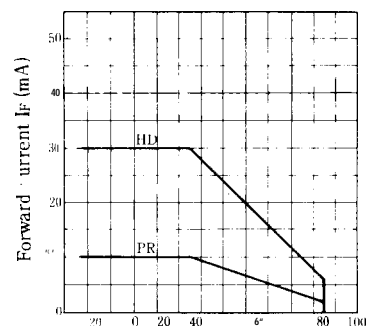
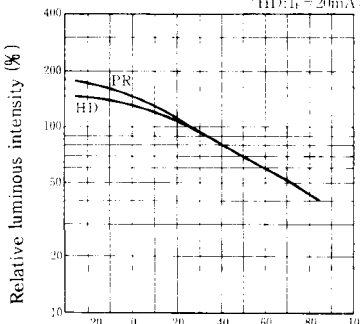
(Ta = 25°C)

Forward voltage  $V_F$  (V)Luminous Intensity vs.  
Forward Current

(Ta = 25°C)

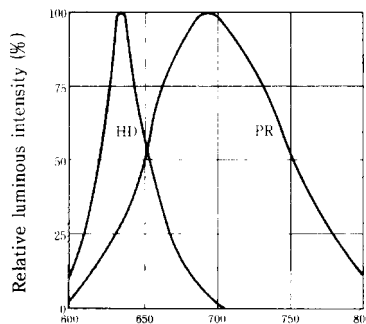
Forward current  $I_F$  (mA)

Forward Current Derating Curve

Ambient temperature  $T_a$  (°C)Relative Luminous Intensity vs.  
Ambient TemperaturePR:  $I_F = 5\text{mA}$   
HD:  $I_F = 20\text{mA}$ Ambient temperature  $T_a$  (°C)

Spectrum Distribution

(Ta = 25°C)

Wavelength  $\lambda$  (nm)

SHARP

GL8HS28 (Sunset orange) / GL8HY28 (Yellow)

■ Electro-optical Characteristics

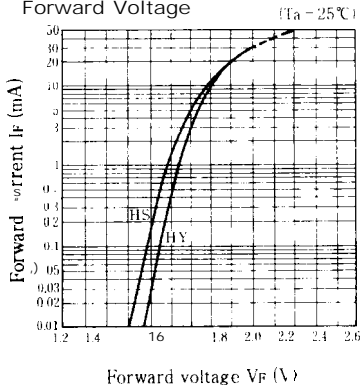
(Ta=25°C)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V <sub>F</sub>	GL8HS28	I <sub>F</sub> = 20mA	—	2.0	2.8	“
		GL8HY28	I <sub>F</sub> = 20mA	—	2.0	2.8	“
※3 Luminous intensity	I <sub>V</sub>	GL8HS28	I <sub>F</sub> = 20mA	2.5	6.0	—	mcd
		GL8HY28	I <sub>F</sub> = 20mA	3.0	7.0	—	
Peak emission wavelength	λ <sub>p</sub>	GL8HS28	I <sub>F</sub> = 20mA	—	610	—	nm
		GL8HY28	I <sub>F</sub> = 20mA	—	585	—	
Spectrum radiation bandwidth	Δλ	GL8HS28	I <sub>F</sub> = 20mA	—	35	—	‘m
		GL8HY28	I <sub>F</sub> = 20mA	—	30	—	
Reverse current	I <sub>R</sub>	GL8HS28	V <sub>R</sub> = 4V	—	—	10	μA
		GL8HY28	V <sub>R</sub> = 4V	—	—	10	
Terminal capacitance	C <sub>t</sub>	GL8HS28	V = 0V f = 1 MHz	—	15	—	pF
		GL8HY28	V = 0V f = 1 MHz	—	35	—	
Response frequency	f <sub>c</sub>	GL8HS28	—	—	4	—	MHz
		GL8HY28	—	—	4	—	

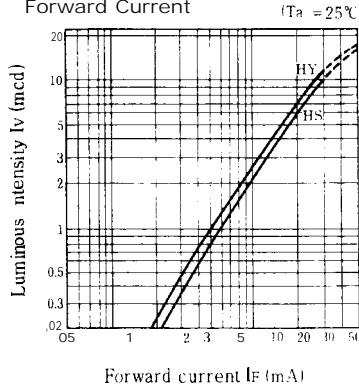
※3 Tolerance: ±30%

■ Characteristics Diagrams

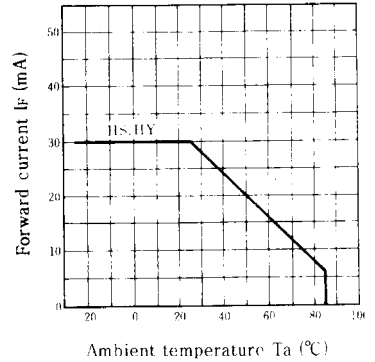
Forward Current vs. Forward Voltage



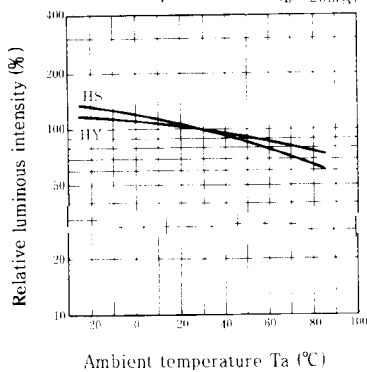
Luminous Intensity vs. Forward Current



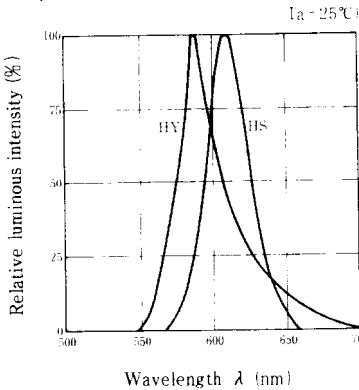
Forward Current Derating Curve



Relative Luminous Intensity vs. Ambient Temperature



Spectrum Distribution



**GL8EG28 (Yellow-green) / GL8KG28 (Green)**

**Electro-optical Characteristics**

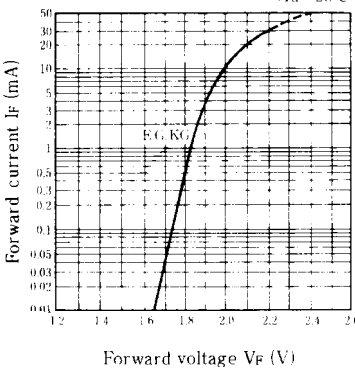
(Ta = 25°C)

Parameter	Symbol	Model No.	Conditions	MIN.	TYP.	MAX.	Unit
Forward voltage	V <sub>F</sub>	GL8EG28	I <sub>F</sub> = 20mA	—	2.1	2.8	V
		GL8KG28	I <sub>F</sub> = 20mA		2.1	2.8	
*3 Luminous intensity	I <sub>v</sub>	GL8EG28	I <sub>F</sub> = 20mA	3.5	6.0	—	mcd
		GL8KG28	I <sub>F</sub> = 20mA	1.0	2.0	—	
Peak emission wavelength	λ <sub>p</sub>	GL8EG28	I <sub>F</sub> = 20mA	—	565	—	‘m
		GL8KG28	I <sub>F</sub> = 20mA		555	—	
Spectrum radiation bandwidth	Δλ	GL8EG28	I <sub>F</sub> = 20mA		30	—	‘m
		GL8KG28	I <sub>F</sub> = 20mA		25	—	
Reverse current	I <sub>R</sub>	GL8EG28	V <sub>R</sub> = 4V			10	μA
		GL8KG28	V <sub>R</sub> = 4V			10	
Terminal capacitance	C <sub>t</sub>	GL8EG28	V = 0V f = 1 MHz	—	35	—	pF
		GL8KG28	V = 0V f = 1 MHz	—	40	—	
Response frequency	f <sub>c</sub>	GL8EG28	—		4	—	‘Hz
		GL8KG28	—		4	—	

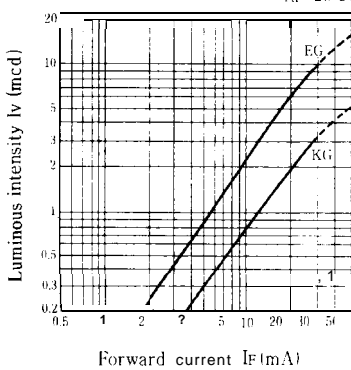
\*3 Tolerance: ±30%

**Characteristics Diagrams**

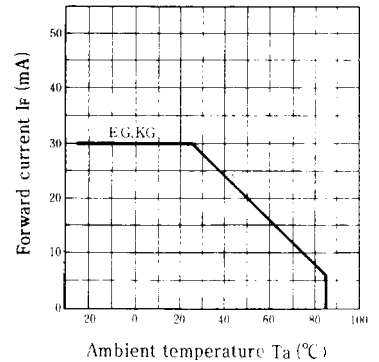
**Forward Current vs. Forward Voltage**



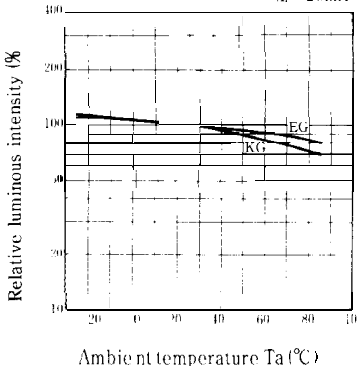
**Luminous Intensity vs. Forward Current**



**Forward Current Derating Curve**



**Relative Luminous Intensity vs. Ambient Temperature**



**Spectrum Distribution**

