



Sensors

●Electrical and optical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions	
Optical output	P <sub>o</sub>	-	13	-	mW	I <sub>F</sub> =50mA	
Emitting strength	I <sub>E</sub>	18	38	-	mW/sr	I <sub>F</sub> =50mA	
Forward voltage	V <sub>F</sub>	-	1.6	2.1	V	I <sub>F</sub> =50mA	
Reverse current	I <sub>R</sub>	-	-	10	μA	V <sub>R</sub> =2V	
Peak light emitting wavelength	λ <sub>P</sub>	-	850	-	nm	I <sub>F</sub> =20mA	
Spectral line half width	Δλ	-	40	-	nm	I <sub>F</sub> =20mA	
Half-viewing angle	θ <sub>1/2</sub>	-	±13	-	deg	I <sub>F</sub> =50mA	
Response time	Rise time	t <sub>r</sub>	-	8.0	-	ns	I <sub>F</sub> =50mA
	Fall time	t <sub>f</sub>	-	6.0	-	ns	I <sub>F</sub> =50mA
Cut-off frequency	f <sub>c</sub>	-	50	-	MHz	I <sub>F</sub> =30mA DC+20mA p-p	

●Electrical and optical characteristic curves

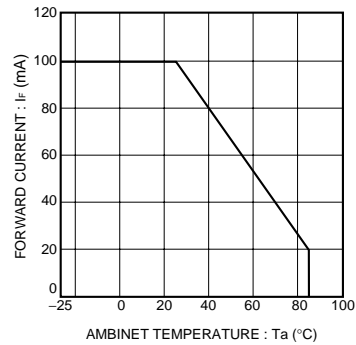


Fig.1 Forward current falloff

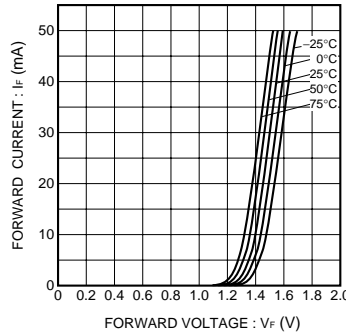


Fig.2 Forward current vs. forward voltage

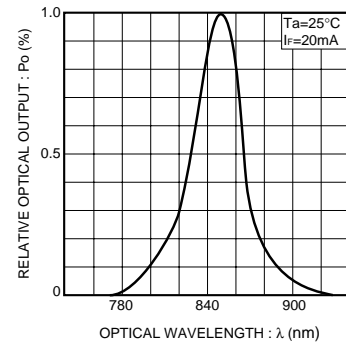


Fig.3 Wavelength characteristics

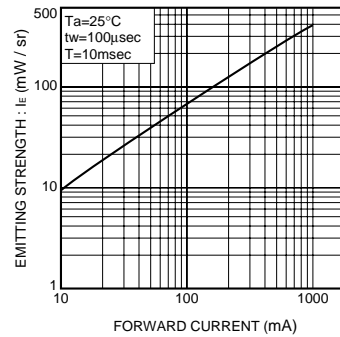


Fig.4 Emitting strength vs. forward current

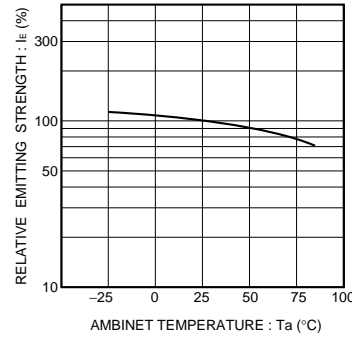


Fig.5 Relative emitting strength vs. ambient temperature

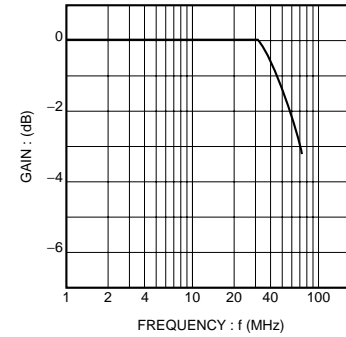


Fig.6 Frequency characteristics

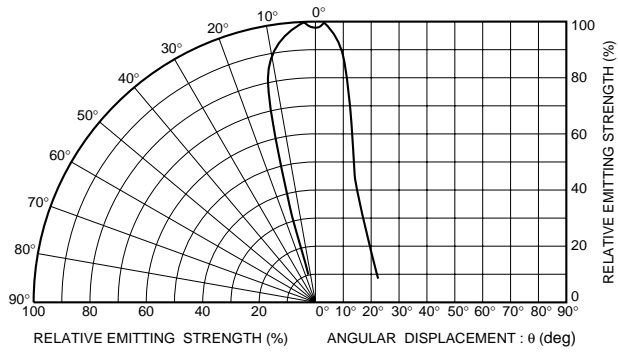


Fig.7 Directional pattern

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