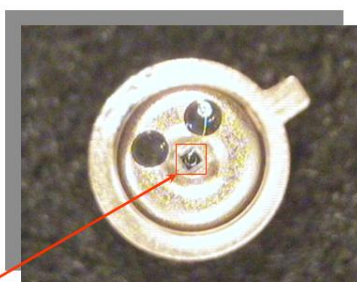


Features

- ☺ Peak emission wavelength: 3.90 μm
- ☺ Narrow Spectrum emission
- ☺ High radiant output power
- ☺ Narrow directivity
- ☺ High speed response



LED CHIP

Applications

- ☺ Light source for H_2S and HBr gas

Accessories (optional)

- [Driver for LEDs D-31M](#)

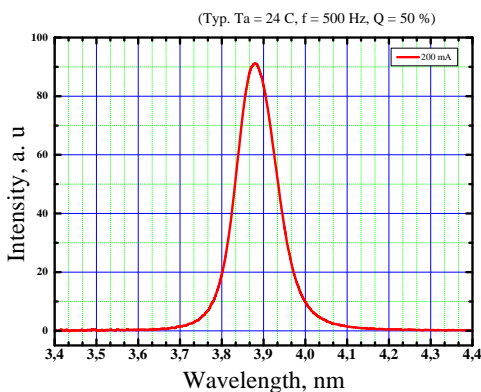
Absolute maximum ratings ($T_a=25\text{ }^\circ\text{C}$, unless otherwise noted)

Package	Parameter	Symbol	Value	Unit
TO-18	Reverse voltage	V_r	0.25	V
	Forward current	I_f	200	mA
	Pulse forward current (Pulse width = 2.0 μs , Duty ratio = 10 %)	I_{fp}	2	A
	Forward current derating rate ($T_a > 25\text{ }^\circ\text{C}$)	IFT	2	mA/ $^\circ\text{C}$
	Power dissipation	P	12	μW
	Operating temperature	T_{opr}	-30 to 85	$^\circ\text{C}$
	Storage temperature	T_{stg}	-40 to 100	$^\circ\text{C}$
	Weight	m	0.65	g
	Size	D	9.0	mm
		H	18.5	

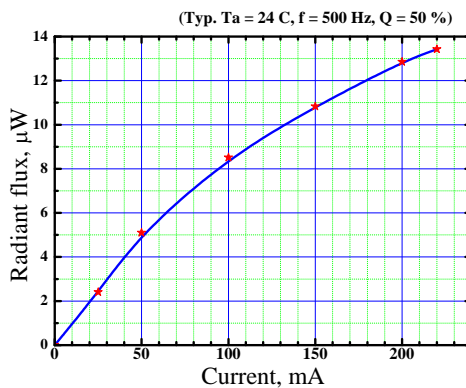
Electrical and optical characteristics (Ta=25 °C)

Parameter	Symbol	Condition	LED-390 - NS			Unit
			Min.	Typ.	Max.	
Peak emission	λ_p	$I_F=50$ mA	3.86	3.90	3.94	μm
Spectral half width	$\Delta\lambda$	$I_F=50$ mA	120	140	160	nm
Radiant flux	ϕ_e	$I_F=200$ mA	15	18	22	μW
Forward voltage	V_F		0.4	0.5	0.7	V
Reverse current	I_R	$V_R=1.0$ V	3	5	8	mA

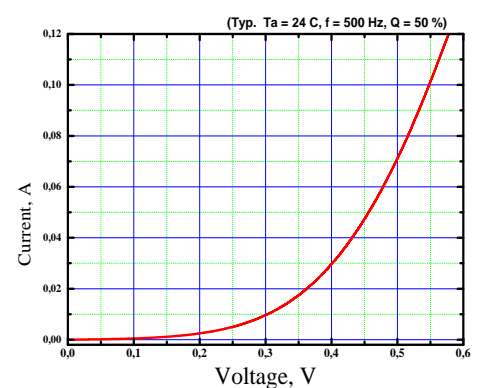
Emission spectrum



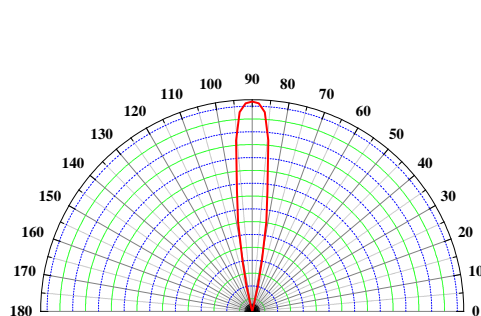
Radiant flux vs. forward current



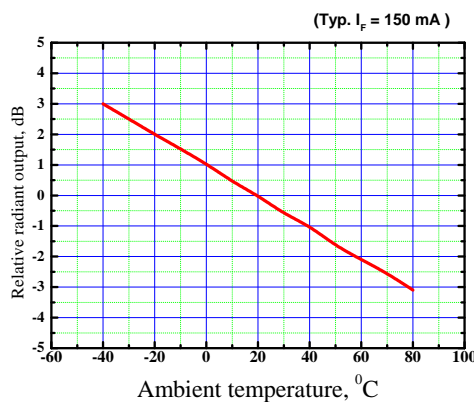
Forward current vs. forward voltage



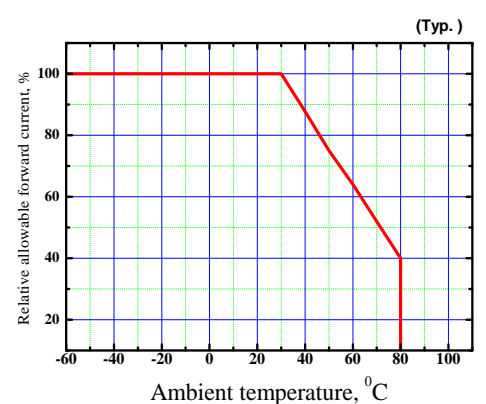
Directivity



Radiant output vs. ambient temperature



Allowable forward current vs. ambient temperature



Dimensional outlines (unit: mm)

