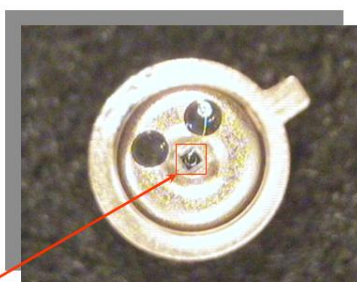


### Features

- ☺ Peak emission wavelength: 3.21  $\mu\text{m}$
- ☺ Narrow Spectrum emission
- ☺ High radiant output power
- ☺ Narrow directivity
- ☺ High speed response



LED CHIP

### Applications

- ☺ Light source for  $\text{C}_2\text{H}_4$ ,  $\text{C}_6\text{H}_6$  and  $\text{C}_2\text{HCl}_3$  gas

### Accessories (optional)

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

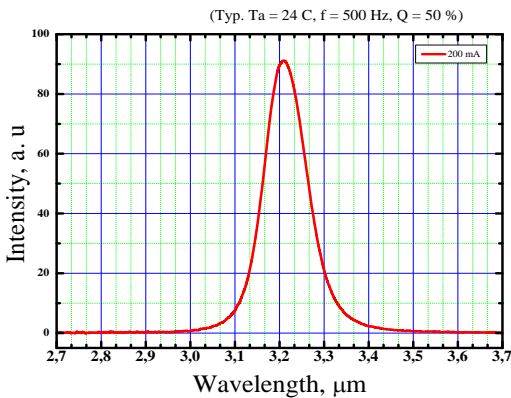
### Absolute maximum ratings ( $T_a=25\text{ }^\circ\text{C}$ , unless otherwise noted)

Package	Parameter	Symbol	Value	Unit
TO-18	Reverse voltage	$V_r$	0.5	V
	Forward current	$I_f$	200	mA
	Pulse forward current (Pulse width = 2.0 $\mu\text{s}$ , 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	7	$\mu\text{W}$
	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	

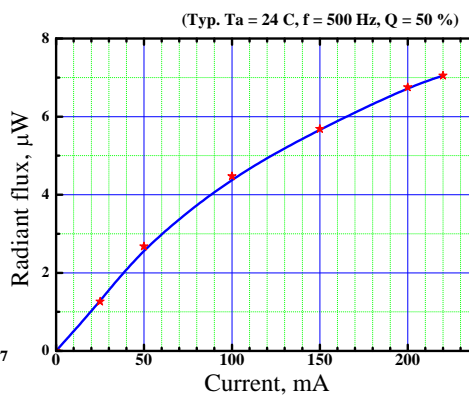
### Electrical and optical characteristics (Ta=25 °C)

Parameter	Symbol	Condition	LED-315 - NS			Unit
			Min.	Typ.	Max.	
Peak emission	$\lambda_p$	$I_F=50$ mA	3.20	3.21	3.22	$\mu\text{m}$
Spectral half width	$\Delta\lambda$	$I_F=50$ mA	100	140	160	nm
Radiant flux	$\phi_e$	$I_F=200$ mA	5	7	9	$\mu\text{W}$
Forward voltage	$V_F$		0.3	0.4	0.6	V
Reverse current	$I_R$	$V_R=0.7$ V	5	7	9	mA

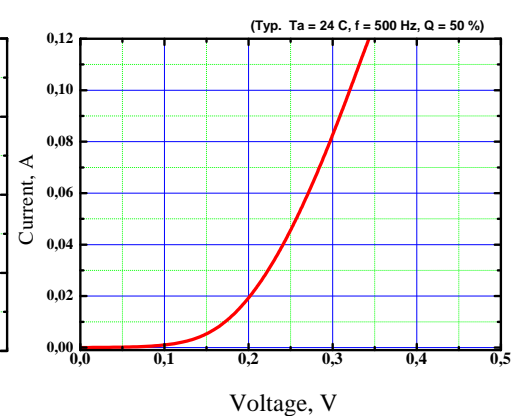
#### Emission spectrum



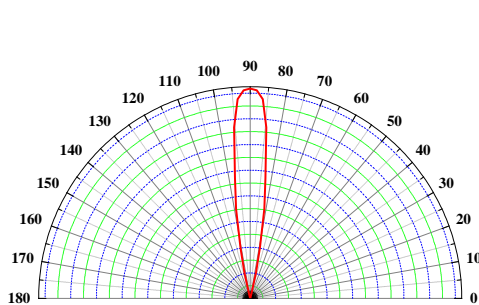
#### Radiant flux vs. forward current



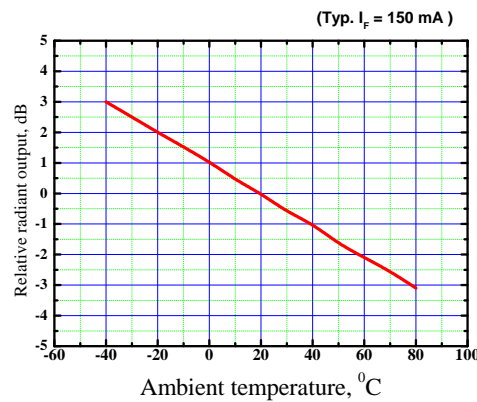
#### Forward current vs. forward voltage



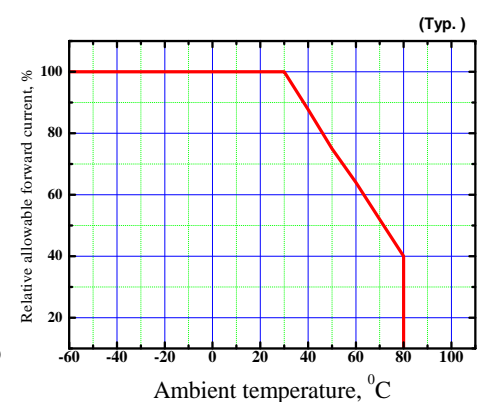
#### Directivity



#### Radiant output vs. ambient temperature



#### Allowable forward current vs. ambient temperature



### ■ Dimensional outlines (unit: mm)

