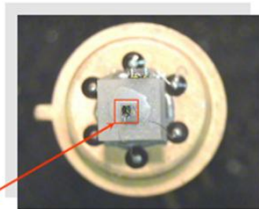




### Features

- ☺ Peak emission wavelength: 3.40 μm
- ☺ Narrow Spectrum emission
- ☺ High radiant output power
- ☺ Narrow directivity
- ☺ High speed response



**LED CHIP**

### Applications

- ☺ Light source for CH<sub>4</sub> and C<sub>2</sub>H<sub>6</sub> gas

### Accessories (optional)

- Driver for LEDs with built-in cooler  
**DLT-27M or DLT-37M**

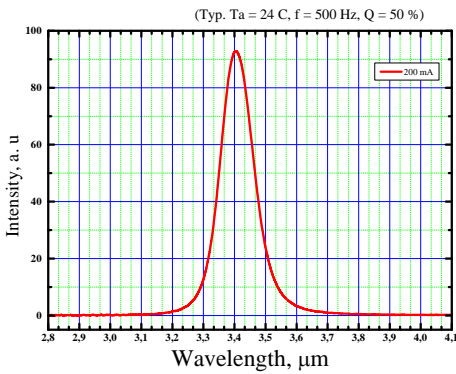
### Absolute maximum ratings (Ta=25 °C, unless otherwise noted)

Package	Parameter	Symbol	Value	Unit
TO-5	Reverse voltage	V <sub>r</sub>	0.2	V
	Forward current (Duty ratio = 50 %)	I <sub>f</sub>	200	mA
	Pulse forward current (Pulse width = 2.0 μs, Duty ratio = 10 %)	I <sub>fp</sub>	2	A
	Forward current derating rate (Ta>25 °C)	IFT	2.1	mA/°C
	Power dissipation	P	18	μW
	Operating temperature	Topr	-15 to 50	°C
	Storage temperature	Tstg	-40 to 100	°C
	Weight	m	3.65	g
	Size	D	15.0	mm
		H	23.0	

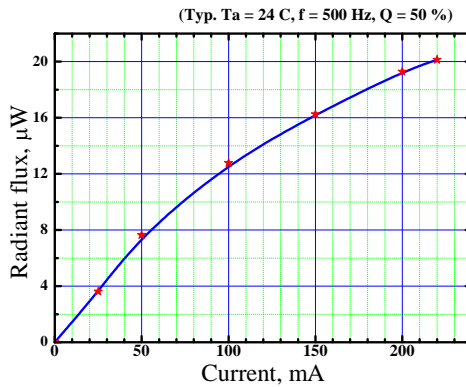
**Electrical and optical characteristics (Ta=25 °C)**

Parameter	Symbol	Condition	LED-340 – NS -TEC			Unit
			Min.	Typ.	Max.	
Peak emission	$\lambda_p$	$I_F=150$ mA	3.36	3.40	3.44	$\mu\text{m}$
Spectral half width	$\Delta\lambda$	$I_F=200$ mA	120	200	280	nm
Radiant flux	$\phi_e$	$I_F=200$ mA	15	18	22	$\mu\text{W}$
Forward voltage	$V_F$		0.3	0.45	0.6	V
Reverse current	$I_R$	$V_R=0.15$ V	5	7	9	mA

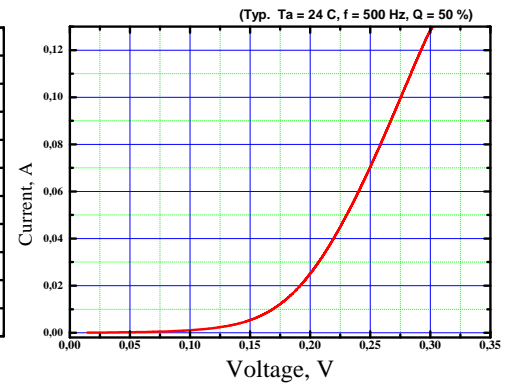
**Emission spectrum**



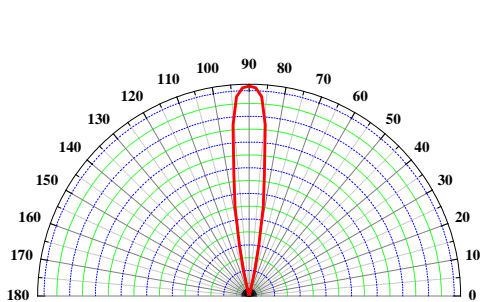
**Radiant flux vs. forward current**



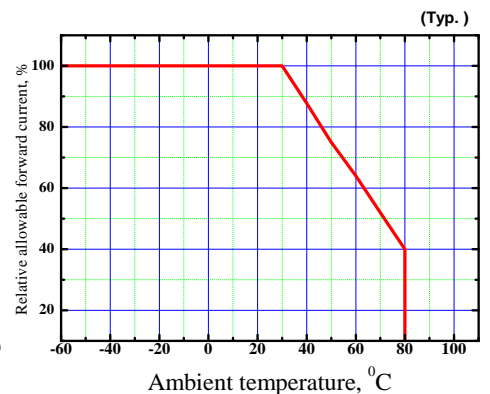
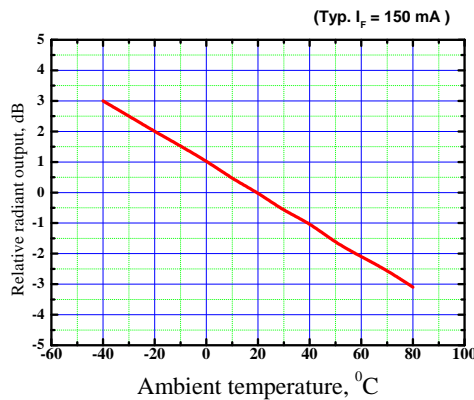
**Forward current vs. forward voltage**



**Directivity**



**Radiant output vs. ambient temperature**   **Allowable forward current vs. ambient temperature**



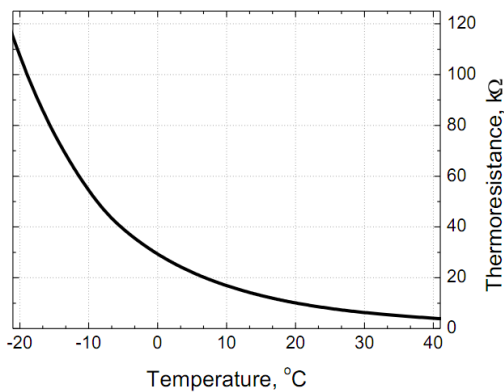
# LIGHT-EMITTING DIODE

## LED-340 - NS - TEC

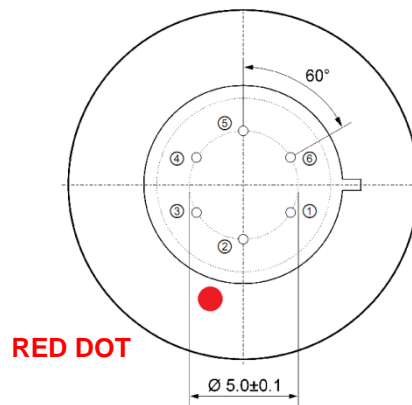
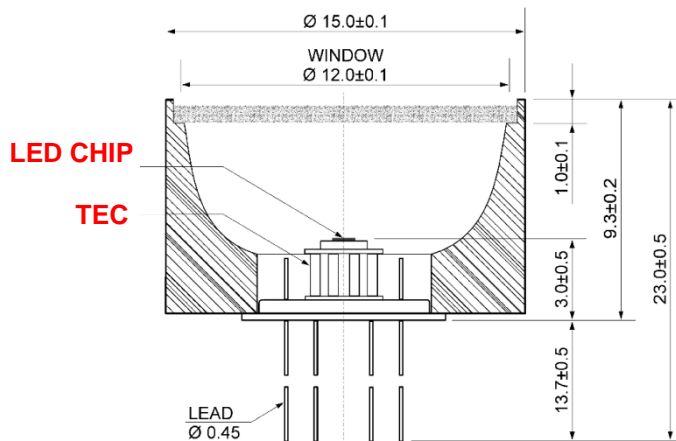
### TEC TO506.1MC0400710.TB103 parameters (without load)

Parameter	Symbol	Value	Unit
Current power ( $\Delta t_{max}$ )	$I_{max}$	1.50	A
Voltage ( $\Delta t_{max}$ )	$U_{max}$	0.80	V
Cooling energy	$Q_{max}$	1.30	W
Temperature range (vacuum)	$\Delta T_{max}$	70	K
Termistor resistance ( $t = 20\text{ }^{\circ}\text{C}$ )	$R_t$	10.00	k $\Omega$

### Thermoresistance vs. temperature



### Dimensional outlines (unit: mm)



Pin	Description
①	TEC (anode)
②	LED (anode)*
③	LED (cathode)*
④	Termistor TC103
⑤	
⑥	TEC (catnode)

\*Special order: the pin polarity can be changed.