



# W CHIP TECH LTD

## 1653nm DFB Laser (CH4 Gas)

W1653C-25-A-SM-FA (7.5W TEC)

### Features

- High reliability, fast response , good stability
- Large Power(> 45mW @ 300mA)
- Focus on CH4 gas, non action for another gas, water and dust

### Main Optical/Electrical characteristics (Tc =25 °C):

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Threshold Current	$I_{th}$	T=25°C	--	28	35	mA
Front Power	$P_o$	$I_f=120mA$	--	18	--	mW
		$I_f=200mA$	--	30	--	
		$I_f=300mA$	--	45	--	
		$I_f=400mA$	--	58	--	
Forward Voltage	$V_f$	$I_f=120mA$	--	0.95		V
		$I_f=200mA$		1.15		
		$I_f=300mA$		1.45		
		$I_f=400mA$		1.75		
Peak Wavelength	$\lambda_p$	CW		1650.90		nm
Spectral Wavelength Width (RMS)	$\Delta\lambda$	@3dB	--	500K	--	Hz
Side Mode Suppression Ratio	SMSR	$I_f=120mA$	40	55	--	dB
		$I_f=200mA$				
		$I_f=300mA$				
		$I_f=400mA$				
Slope Efficiency	SE			0.16		mW/mA
<b>THERMISTOR</b>	<b>Symbol</b>	<b>Test Conditions</b>	<b>Min</b>	<b>Typ</b>	<b>Max</b>	<b>Unit</b>

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 Visit [www.wchip.com.tw](http://www.wchip.com.tw) for additional data sheets and product information. 13524375333@139.com

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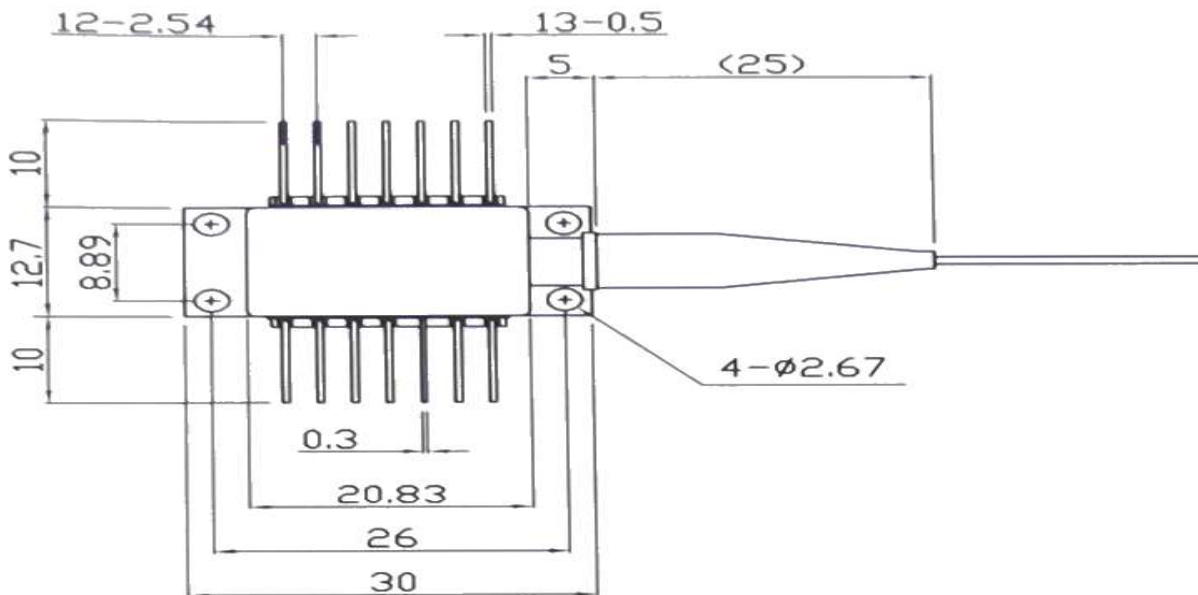
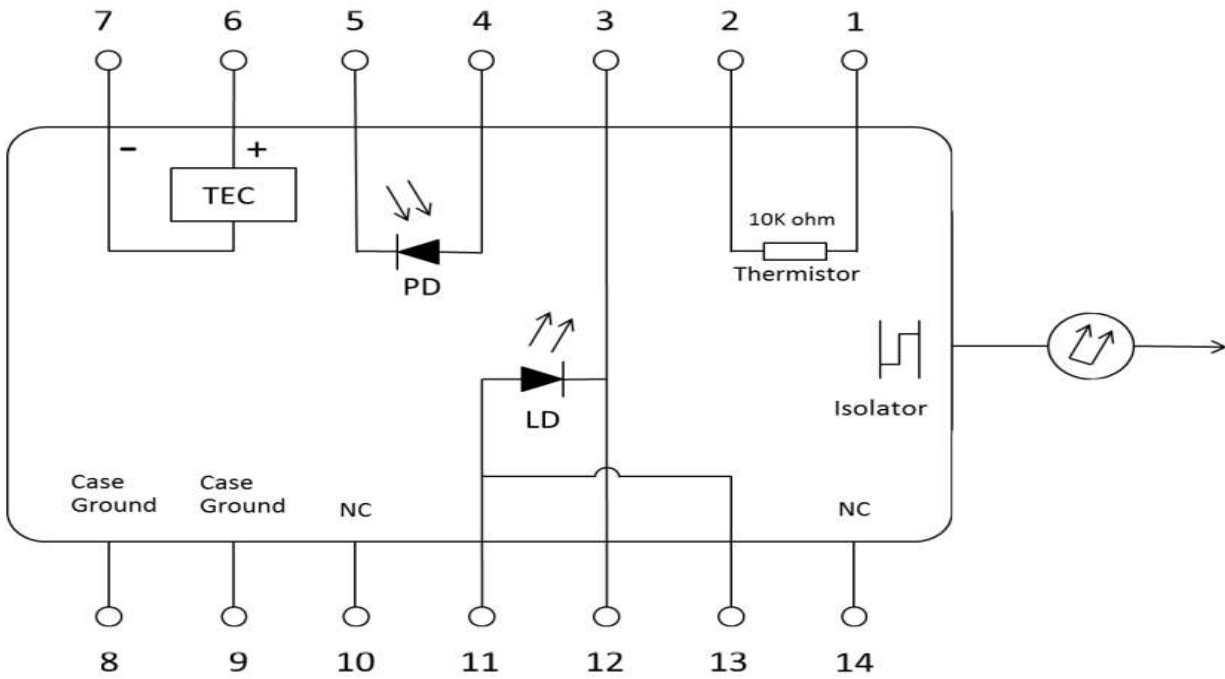
<b>Thermistor Resistance</b>	$R_T$			10		$K\Omega$
<b>Thermistor Temp. Coefficient</b>				-4.6		%/°C
<b>Thermoelectric Cooler</b>						
<b>TEC Forward Current</b>	$I_C$				3.3	A
<b>TEC Forward Voltage</b>	$V_C$				3.8	V
<b>TEC Power</b>	$P_{TEC}$				7.7	W
<b>FIBER</b>						
<b>Type</b>			Single model			
<b>Core/Cladding Diameter</b>	$D_C/D_{Cl}$			8.2/125		$\mu m$
<b>Length</b>	$L$			1		m
<b>Optical Connector</b>			FC/APC others available on request			

## Absolute Maximum Rating:

Parameter	Symbol	Min	Max	Unit
<b>Forward Current (LD)</b>	$I_f$	--	450	mA
<b>Reverse Voltage (LD)</b>	$V_r$	--	1.8	V
<b>Case temperature</b>	$T_{Case}$	-20	70	°C
<b>Storage Temperature</b>	$T_{stg}$	-40	85	°C

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## Packing:



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