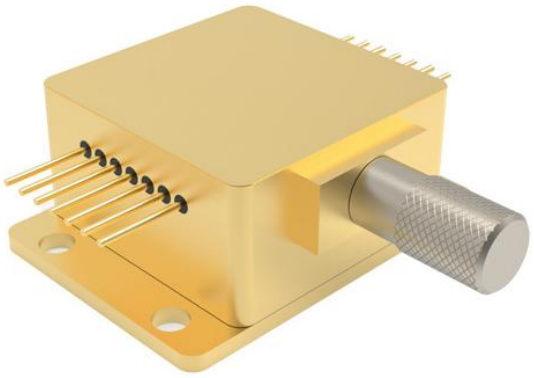
980 nm 10 W Multi-Function Detachable Laser Diode

K980F14CC-10.00W (Standard Product)



Features:

- 980 nm wavelength
- 10 W output power
- 200 μm fiber core diameter
- 0.22 NA
- Aiming beam
- Fiber & Power monitor
- Thermistor

Applications:

- Medical use

Specifications (25℃)		Symbol	Unit	K980F14CC-10.00W		
				Minimum	Typical	Maximum
Optical Data[1]	CW Output Power	P_O	W	10	-	-
	Center Wavelength	λ_c	nm	980±10		
	Wavelength Shift with Temperature	$\Delta\lambda/\Delta T$	nm/℃	-	0.3	-
Electrical Data	Electrical-to-Optical Efficiency	PE	%	-	48	-
	Threshold Current	I_{th}	A	-	1.0	-
	Operating Current	I_{op}	A	-	-	12.5
	Operating Voltage	V_{op}	V	-	-	2.0
	Slope Efficiency	η	W/A	-	0.9	-
Fiber Data	Core Diameter	D_{core}	μm	-	200	-
	Numeric Aperture	NA	-	-	0.22	-
	Fiber Connector	-	-	SMA905		
Thermistor	-	Rt	(KΩ)/(25℃)		10±3%	
PD	-	PD	μA	100	-	2000
TEC	Max. Current	I_{tec}	A	-	-	6
	Max. Voltage	V_{tec}	V	-	-	9.8
Others	ESD	V_{esd}	V	-	-	500
	Storage Temperature[2]	T_{st}	℃	-20	-	70
	Lead Soldering Temp	T_{ls}	℃	-	-	260
	Lead Soldering Time	t	sec	-	-	10
	Operating Case Temperature[3]	T_{op}	℃	15	-	35
	Relative Humidity	RH	%	15	-	75
Aiming Beam	Output Power	P_a	mW	2	-	-
	Wavelength	λ_a	nm	635±10		
	Voltage	V_a	V	5V(Constant)		

(1) Data measured under operation output at 10W@25℃.
(2) A non-condensing environment is required for operation and storage.
(3) Operating temperature defined by the package case. Acceptable operating range is 15℃~35℃, but performance may vary.

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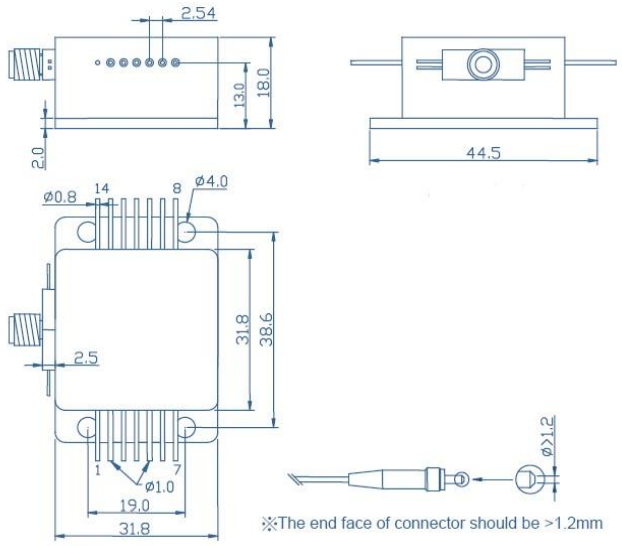
Package Dimensions (mm)



Pin	Function
1	Case
2	LD(+)
3	Thermistor
4	Thermistor
5	LD(-)
6	PD(P)
7	PD(N)
8	TEC(-)
9	FCD PD(P)
10	FCD LED (-)
11	FCD LED (+)&FCD PD (N)
12	Aiming Beam(5V)
13	Aiming Beam(0V)
14	TEC(+)
15	TEC(-)
16	FCD PD(P)

OPERATING NOTES

- Avoid eye and skin exposure to direct radiation during operation.
- ESD precautions must be taken during storage, transportation and operation.
- Short-circuit is required between pins during storage and transportation.
- Please connect pins to wires by solder instead of using socket when operation current is higher than 6A. Soldering point should be close to the middle of the pins. Soldering temperature should be lower than 260℃ and time shorter than 10 second.
- Make sure the fiber output end is properly cleaned before operation of laser. Follow safety protocols to avoid injury when handling and cutting the fiber.
- Use constant current power supply to avoid surge current during operation.
- Laser diode must be used according to the specifications.
- Laser diode must work with good cooling.
- Operation temperature ranges from 15℃ to 35℃.
- Storage temperature ranges from -20℃ to +70℃.