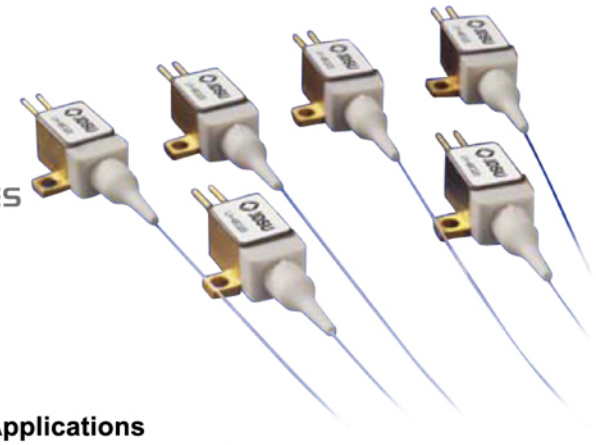
方全有限公司
Rapitech Enterprise Co.,Ltd.

二極體雷射
Diode Laser

JDSU

6398-L4ti系列 二極體雷射

High - Power 10 W 9xx nm Fiber - Coupled Diode Laser - 6398 - L4ti Series



Key Features

- 976±3 nm wavelength
- Full fiber laser feedback protection
- 10 W output power
- High reliability
- 105 µm aperture
- 0.22 or 0.15 NA
- Isolated electrical contacts

Applications

- Fiber laser pumping

Specifications for 0.22NA

Parameter	Symbol	Minimum	Typical	Maximum
Laser Characteristics				
CW output power	P_o	-	-	10 W
Mean wavelength	$\lambda_{p\ 976\ nm}$	973 nm	976 nm	979 nm
Spectral width (90% ofmaximum)	$\Delta\lambda$	-	3 nm	6 nm
Slope efficiency	$\eta_{D\ 976\ nm}$	-	0.90 W/A	-
Conversion efficiency	η	-	48%	-
Threshold current	I_{th}	-	600 mA	850 mA
Operating current (BOL)	$I_{op\ 976\ nm}$	-	11.8 A	13.0 A
Forward voltage	V_f	-	1.81 V	2.0 V
Series resistance	R_s	-	0.04 Ω	-
Recommended case temperature	T_c	20°C	25°C	40°C
Wavelength tuning vs.temperature	$\Delta\lambda/\Delta T$	-	0.35 nm/°C	-
Wavelength tuning vs.output power	$\Delta\lambda/\Delta P$	-	1.0 nm/W	-
Fiber Characteristics				
Fiber core diameter	d_c	-	105 µm	-
Fiber numerical aperture	NA	0.20	0.22	0.24
Fiber cladding	d_{cl}	-	125 µm	-
Fiber buffer	d_b	-	250 µm	-
Fiber length	l_f	0.9 m	1 m	-

Specification for 0.15 NA

Parameter	Symbol	Minimum	Typical	Maximum
Laser Characteristics				
CW output power	P_o	-	-	10 W
Mean wavelength	$\lambda_{p\ 976\ nm}$	973 nm	976 nm	979 nm
Spectral width (90% ofmaximum)	$\Delta\lambda$	-	3 nm	6 nm
Slope efficiency	$\eta_{D\ 976\ nm}$	-	0.90 W/A	-
Conversion efficiency	η	-	46%	-
Threshold current	I_{th}	-	600 mA	850 mA
Operating current (BOL)	$I_{op\ 976\ nm}$	-	12.3 A	13.5 A
Forward voltage	V_f	-	1.81 V	2.0 V
Series resistance	R_s	-	0.04 Ω	-
Recommended case temperature	T_c	20°C	20°C	40°C
Wavelength tuning vs.temperature	$\Delta\lambda/\Delta T$	-	0.35 nm/°C	-
Wavelength tuning vs.output power	$\Delta\lambda/\Delta P$	-	1.0 nm/W	-
Fiber Characteristics				
Fiber core diameter	d_c	-	105 µm	-
Fiber numerical aperture	NA	0.135	0.15	0.165
Fiber cladding	d_{cl}	-	125 µm	-
Fiber buffer	d_b	-	250 µm	-
Fiber length	l_f	0.9 m	1 m	-

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