福津光电
PHOTONSTREAM

Optical fiber micro-processing and thin film coating
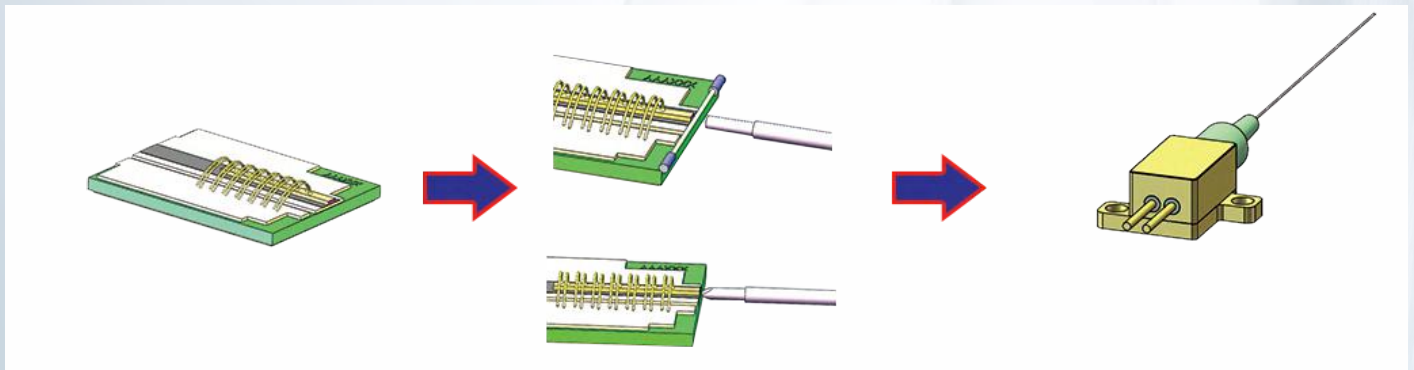
Single COS Coupling to Fiber Tail

INTRODUCTION

Photonstream offers the cost-effective fiber coupled single COS diode laser for medical telecom or LiDAR System. This single emitter coupling output is base on Photonstream in-house lensed fiber or fast axis collimator + AR coated fiber pigtail solution, this simplified design is cost effectively and excellent reliability.

FEATURES

- Simplified design for cost effective
- Applicable for most single diode package
- Small foot print and output connector is customizable
- Cooper package, good heat dissipation and Seal sealing
- High reliability

OPTICAL DESIGN

▶ SPECIFICATION OF FIBER COUPLED LASER DIODE ▼

Specifications(25℃) (Take 940nm laser for model sample)		FX940-105C22NA-10.0W				
		Symbol	Unit	Min	Typical	Max
Optical Data(1)	Output Power	Po	W	10	-	-
	Center Wavelength	λc	nm	935	940	945
	Spectral Width(FWHM)	Δλ	nm	-	3.0	5.0
	Wave Length Shift with Temperature	Δλ/ΔT	nm/℃	-	0.3	-
Electrical Data	Electrical-to-Optical Efficiency	PE	%	-	52	-
	Threshold Current	Ith	A	-	1.2	-
	Operating Current	Iop	a	-	12	13
	Operating Voltage	Vop	V	-	1.6	1.8
	Slope Efficiency	η	W/A	-	0.9	-
Fiber Data	Core Diameter	Dcore	um	-	105	-
	Cladding Diameter	Dclad	um	-	125	-
	Numeric Aperture	NA	-	-	0.22	-
	Fiber Length	-	m	-	1	-
	Loose Tube Diameter	-	mm	-	0.9	-
	Minimum Bending Radius	-	mm	50	-	-
	Output Fiber Termination	-	-	Bare tip or FC/APC Connector		
Feedback Isolation	Wavelength Range	-	nm	1500nm~1600nm		
	Isolation	Iso	dB	-	30	-
Others	ESD(2)	Vesd	V	-	-	500
	Storage Temperature(3)	Tst	℃	-20	-	100
	Lead soldering Temp	Tls	℃	-	-	260
	Lead soldering Time	t	sec	-	-	10
	Operating Case Temperature	Top	-	0	-	75
	Relative Humidity	RH	%	15	-	85

(1) Data measured under operation output at 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.

▶ PACKAGE DIMENSIONS ▼