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1940nm-1W-COS Specifications

TL-1940-001310



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Shanghai Tulin Optoelectronic Technology Co., Ltd.

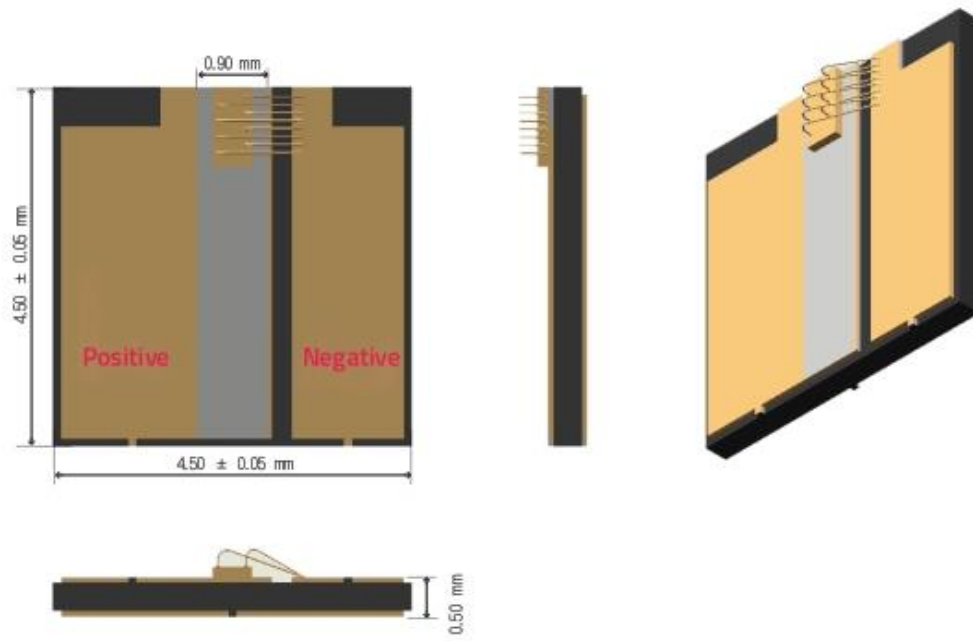
Key Features:

- The key components of this product are packaged using AuSn hard solder. The excellent soldering performance, wettability, operating temperature, and high thermal conductivity of AuSn solder ensure the product's consistency and reliability.
- This product adopts a high-thermal-conductivity aluminum nitride (AlN) ceramic heat sink package, which electrically isolates the laser chip from the cooling system. Its ultra-high thermal conductivity ensures more stable performance after packaging.
- The product surface features a gold-plated design, enhancing its appearance.

Specifications:

Item	Optical Parameters	Symbol	Min	Typ	Max	Units
1	Wavelength	λ_c	1900	1940	1980	nm
2	Output Power	P_{op}		1		W
3	Spectral Width	$\Delta\lambda$		15	25	nm
4	Wavelength Temperature Coefficient	$\Delta\lambda/\Delta T$		1		nm/°C
5	Slop Efficiency	SE	0.25	0.32		W/A
6	Slow Axis Divergence	$\theta_{ }$		20	28	degrees
7	Fast Axis Divergence	$\theta_{\perp}$		55	65	degrees
	Electrical Parameters	Symbol	Min	Typ	Max	Units
8	Operating Current	I_{op}		4	4.2	A
9	Operating Voltage	V_{op}		1.2	1.7	V
10	Threshold Current	I_{th}		0.15	0.25	A
	Mechanical Parameters	Symbol	Min	Typ	Max	Units
11	Aperture (Emitter Width)	W_e		100		μm
12	Chip Width	W		500		μm
13	Cavity Length	L		1000		μm
14	Chip Thickness	T	130	135	140	μm
15	Operating Temperature		10	20	50	°C
16	Storage Temperature		-10	25	60	°C
* Specified values are test at a constant sink temperature of 15°C						

Dimensions (mm):



Applications:

- Laser Medical Treatment
- Laser Pump Source
- Plastic Material Processing
- LiDAR
- Gas Detection

Product Appearance Diagram:

