

STD-UMC-100-975-TE-12-4.5

## High Power Single Emitter Diode Lasers, 975nm, 12W CW



### Features:

- High output power
- High power conversion efficiency
- High brightness
- High reliability

### Technical Advantages:

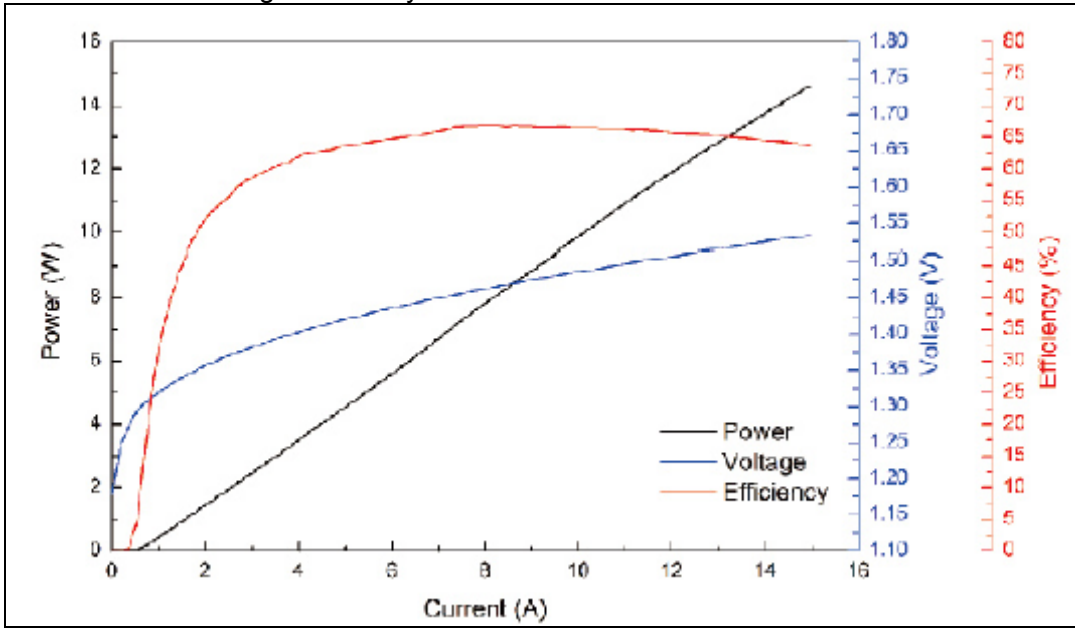
- High power and high efficient epitaxial design
- High-quality epitaxial material growth
- Special passivation method for cavity surface

### Specifications

	Symbol	Min.	Typical	Max.	Unit
<b>Operation</b>					
Optical output power	P <sub>o</sub>		12		W
Wavelength	λ <sub>o</sub>	972	975	978	nm
Operation mode			CW		
<b>Dimensions</b>					
Emission region width	E.W.	95	100	105	um
Cavity length	L	4495	4500	4505	um
Width	W	395	400	405	um
Thickness	D	140	145	150	um
<b>Electro-optical parameters</b>					
Electro-optical efficiency	η	60	62		%
Slope efficiency	SE	0.98	1.02		W/A
Threshold efficiency	l <sub>th</sub>		0.7	0.8	A
Operation current	I <sub>op</sub>		12.5	13.5	A
Operation voltage	V <sub>op</sub>		1.52	1.62	V
Spectral width FWHM	Δλ		3	3.5	nm
Wavelength shift vs. temp.	Δλ/ΔT		0.35		Nm/°C
Vertical far field divergence angle	θ <sub>⊥</sub>		28	30	Deg
Horizontal far field divergence angle	θ <sub>∥</sub>		7.5	8.5	Deg
Polarization	TE	95			%

Remark: Tested with COS packaged products in the CW mode at 25 °C.

Current-Power-Voltage-Efficiency



Spectral Characteristics

