

# D405-20

## • 405nm 20mW laser diode•

### Features

- Device: 405nm laser diode
- Power: 20mW
- Package Type: 5.6mm TO
- PIN configuration: Style B

### ▪ Absolute Maximum Rating (Tc=25°C)

Characteristics	Symbols	Rating	Unit
Optical power	Po	20	mW
Reverse Voltage (Laser)	V	2	V
Reverse Voltage (PIN)	V	30	V
Operating Temperature	Top	-10 to +70	°C
Storage Temperature	Tstg	-40 to +85	°C

### ▪ Electrical and Optical Characteristics (Tc=25°C)

Characteristics	Symbols	Min	Typ	Max.	Unit	Condition
Optical Power	Po	-	20	-	mW	-
Threshold Current	Ith	-	25	50	mA	Po=20mW
Operating Current	Iop	-	50	75	mA	Po=20mW
Operating Voltage	Vop	-	5.0	6.5	Volts	Po=20mW
Slope Efficiency	$\eta$	-	1.3	-	mW/mA	-
Lasing Wavelength	$\lambda$	395	405	415	nm	Po=20mW
Beam Divergence	$\theta_{\parallel}$	6.0	9.0	12	deg	Po=20mW
	$\theta_{\perp}$	16	20	25	deg	Po=20mW
Beam Angle Deviation	$\theta_{\parallel}$	-3		3	deg	Po=20mW
	$\theta_{\perp}$	-3		3	deg	Po=20mW
Monitor Current	Im	-	0.20	0.50	mA	Po=20mW
Emission Point Accuracy	$\Delta X$	-80	-	80	$\mu\text{m}$	
	$\Delta Y$	-80	-	80	$\mu\text{m}$	
	$\Delta Z$	-80	-	80	$\mu\text{m}$	
Astigmatism	As	-	-	15	$\mu\text{m}$	