



## DL-7146-101S

- *Violet Laser Diode*
- *405 nm, 80 mW*
- *Multi transverse mode*
- *TO18 package without PD*



### Description

**DL-7146-101S** is a **GaN** based, multi transverse mode, 405 nm violet laser diode in TO18 package **without photodiode**. It is an efficient radiation source for many applications featuring **low threshold current** and high operating temperatures up to 75°C

### Maximum Ratings

Parameter	Symbol	Values		Unit
		Min.	Max.	
Optical Output Power	$P_O(CW)$		85	mW
Reverse Voltage	$V_R$		2	V
Operating Temperature	$T_{CASE}$	0	+ 75	°C
Storage Temperature	$T_{STG}$	- 40	+ 85	°C
Soldering Temperature	$T_{SOLDER}$		260	°C

### Laser Characteristics ( $T_{CASE} = 25^\circ C, P_O = 80 mW$ )

Parameter	Symbol	Values			Unit
		Min.	Typ.	Max.	
Emission Wavelength	$\lambda_{peak}$	395	405	415	nm
Threshold Current	$I_{th}$		45	60	mA
Operating Current	$I_F$		110	140	mA
Operating Voltage	$V_F$		5.4	6.0	V
Beam Divergence (FWHM)	$\theta_{  } \times \theta_{\perp}$	6x16	8x19	12x23	deg
Off Axis Angle	$\lambda\theta_{  }, \lambda\theta_{\perp}$	-3, -3		3, 3	deg
Differential Efficiency	$SE$	0.8	1.2		mW/mA

