

## PSL-245 1460 nm Single Mode Laser in TO39



### 1. PRODUCT DESCRIPTION

The Princeton Lightwave PSL-245 is a high power single mode 1460nm InP based laser package in a standard TO-39 / TO-5 header hermetically sealed with an AR coated window.

### 2. PERFORMANCE SPECIFICATIONS

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Center Wavelength	$\lambda$	Pulsed mode with 1% duty cycle and 3 ms pulse duration, 25°C, $I_{op} = 1.0$ A	1440	1460	1480	nm
Drive Current (Pulsed)	$I_{op}$	Pulsed operation (1% Duty cycle 3 ms pulse duration, 25°C), $P_{op} = 350$ mW		1.0	1.5	A
Monitor Current	$I_{mon}$	Pulsed mode with 1% duty cycle and 3 ms pulse duration, 25°C, $I_{op} = 1.0$ A	0.3	1.0		mA
Forward Voltage	$V_{op}$	At rated power		2.4	3.8	V

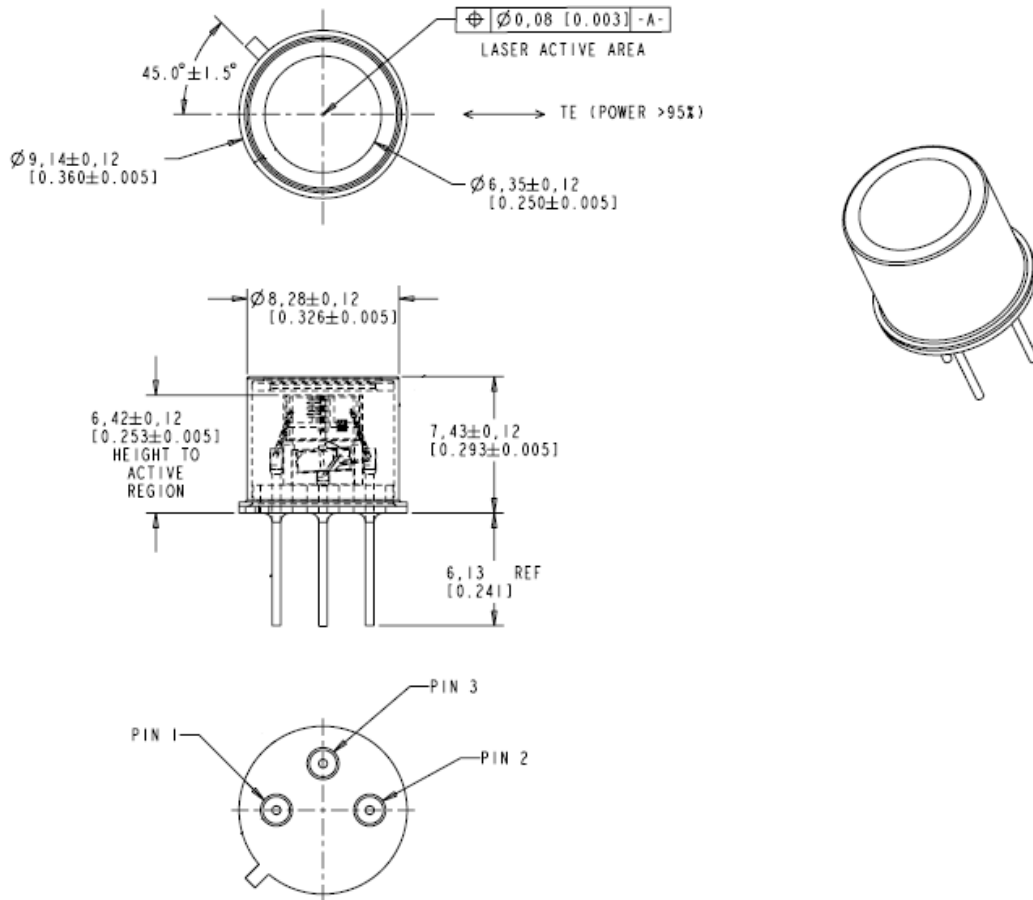
### 3. MAXIMUM RATINGS

Parameter	Min	Max	Units
<b>Laser Diode</b>			
Forward Current		1.7	A
Reverse Voltage		2	V
Operating Temperature	-40	85	° C
<b>Monitor Photodiode</b>			
Forward Current		5	mA
Reverse Voltage		20	V
<b>Package</b>			
Storage Temperature	-40	85	° C
Lead Soldering Temperature (10 sec. max)		260	° C

Maximum ratings indicate conditions under which the device may be damaged during short periods of time and which should be avoided.

### 3. MECHANICAL SPECIFICATIONS

The TO-39 package contains single mode laser diode mounted on an AlN submount and aligned to a back facet monitor. These are assembled on a header with a copper-tungsten pedestal for maximum heat sinking and thermal performance. To achieve the best performance minimize the possibility of damage to the laser, adequate heat sinking or cooling should be used.



**TO-39 Pin-out**

Pin	Description
#1	LD Cathode
#2	LD Anode PD Cathode
#3	PD Anode

### 4. PRODUCT HANDLING

These lasers are sensitive to electrostatic discharge (ESD) and should be handled with appropriate caution, including the use of ESD protective equipment such as grounding straps and anti-static mats.