

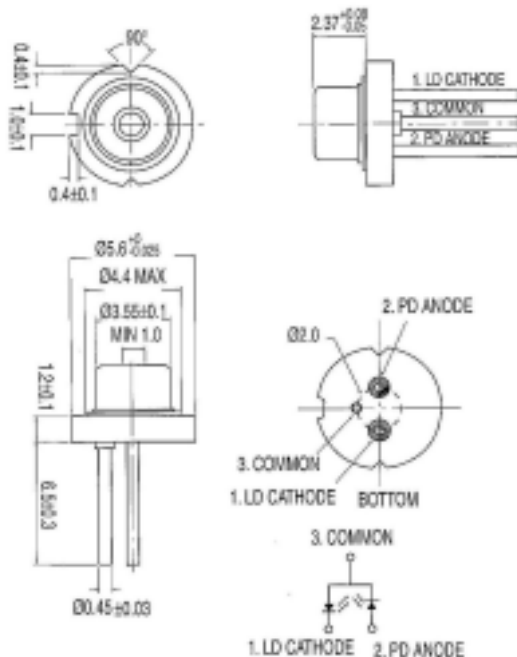


DB LECTRO
COMPOSANTS ÉLECTRONIQUES
ELECTRONIC COMPONENTS

6311-7212-AU 635nm 10mW Laser Diodes AUTO PACKAGE

Specifications

Device	Laser Diode
Package Type	TO-18(ϕ 5.6mm)



■ Absolute Maximum Ratings($T_c=25^\circ\text{C}$)

Characteristics	Symbols	Ratings	Units
Optical Output	P_o	12	mW
Reverse Voltage	Laser	V_r	2 V
	PIN PD	$V_r(\text{PIN})$	30 V
Operating Temperature	T_{op}	-10 +40	$^\circ\text{C}$
Storage Temperature	T_{stg}	-15 +85	$^\circ\text{C}$

■ Electrical and optical Characteristics($T_c=25^\circ\text{C}$)

Characteristics	Symbols	Conditions	Min.	Typ.	Max.	Units
Threshold Current	I_{th}	-	-	25	35	mA
Operating Current	I_{op}	$P_o=10\text{mW}$	-	45	55	mA
Operating Voltage	V_{op}	$P_o=10\text{mW}$	-	2.3	2.7	Volts
Slope Efficiency	η	5mW	0.3	0.4	1.0	mW/mA
		$I(10\text{mW})-I(5\text{mW})$				
Monitor Current	I_m	$P_o=10\text{mW}$	-	0.4	1.0	mA
Beam Divergence (FWHM)	Parallel	$\theta_{//}$	-	8	-	deg.
	Prependicular	$\theta_{\perp}$	-	30	-	deg.
Parallel Deviation Angle	$\Delta \theta_{//}$	$P_o=10\text{mW}$	-3	-	3	deg.
Perpendicular Deviation Angle	$\Delta \theta_{\perp}$	$P_o=10\text{mW}$	-3	-	3	deg.
Emission Point Accuracy	ΔX	$P_o=10\text{mW}$	-80	-	80	μm
	ΔY	$P_o=10\text{mW}$	-80	-	80	μm
	ΔZ	$P_o=10\text{mW}$	-80	-	80	μm
Lasing Wavelength	λ	$P_o=10\text{mW}$	630	635	640	nm

I_m is sorting by custom's need

© $\theta_{//}$ and $\theta_{\perp}$ are defined as the angle within which the intensity is 50% of the peak value.