

CS450050M3X

450nm Compact Laser Diode Modules Key features

Visible light $\lambda = 450\text{nm}$
 Output powers =50mW
 Package type=3.8mm Φ



Applications

Blu-ray Disc/HD DVD drive
 Other new application

Laser Diode Solutions

CS450050M3X is a 450nm band laser diode. It's an attractive light source, with a typical light output power of CW 50mW. It's suitable for use as high reliability laser diode in a wide range of industrial application.

Electrical and Optical Characteristics at $T_c = 25^\circ\text{C}$

Item	Symbols	Min.	Typ.	Max.	Unit	Condition
Optical Output Power	Po	-	-	80	mW	-
Threshold Current	I _{th}	-	30	60	mA	-
Operating Current	I _{op}	-	80	120	mA	-
Slope Efficiency	SE				mW/mA	-
Operating Voltage	V _{op}	-	5.5	6.5	V	-
Peak Wavelength	λ_p	440	450	460	nm	-
Beam Divergence	$\Theta_{//}$	4	7	15	deg	-
	Θ_{\perp}	15	21	25	deg	-
Modulation Frequency	f	-	>100	-	MHZ	-

Absolute Maximum Rating at Tc=25°C

Items	Symbols	Values	Unit
Optical Output Power	Po	80	mW
Laser Diode Reverse Voltage	V	2	V
Operating Temperature	To	-10~+70	°C
Storage Temperature	Ts	-40~+85	°C

Electrical Connection

Package Type



