

CS445060S3X

445 nm Laser Diode

Features

- 60 mW CW optical output power
- Compact TO-38 package
- Single-transverse mode output
- High performance GaN laser design
- High efficiency over a broad temperature range
- Highest reliability in the industry
- Designed for display and specialty medical, industrial, and defense applications



Electro-Optical Characteristics, 25C

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Optical Power	CW	P_o	-	60	-	mW
Wavelength	60 mW CW	λ_p	435	445	455	nm
Threshold Current	60 mW CW	I_{th}	-	35	-	mA
Operating Current	60 mW CW	I_{op}	75	95	115	mA
Operating Voltage	60 mW CW	V_{op}	4.5	5.5	6.0	V
Slope Efficiency	60 mW CW	η	-	0.9	-	W/A
Beam Divergence, FWHM	60 mW CW	$\theta_{//}$	6	10	14	deg
		θ_{\perp}	11	15	25	

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Operating Temperature	T_{op}	-10	75	C
Storage Temperature	T_{stg}	-40	85	C
Soldering Temperature 5 sec	T_{solder}		300	C
Reverse Voltage	V_r		5	V

Package Characteristics

Type	3.8mm TO can				
Positional Accuracy	$\Delta x, \Delta y, \Delta z$	-80	80	μm	
Pointing Accuracy	$\Delta\theta_{//}$	-2	2	deg	
	$\Delta\theta_{\perp}$	-2.5	2.5	deg	

