25Gbps Multi-Mode Dual Top Contact 850nm VCSEL Chip

Part No. VCC-85A25G

Features

- 850nm multimode emission
- High data rate up to 25Gbps
- P and N bonding pads on top surface
- Low threshold and operation current

Specifications

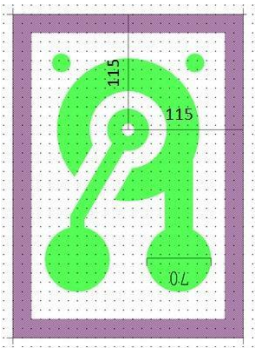
Absolute Maximum Ratings				
Parameters	Min.	Max.	Unit	Conditions
Storage Temperature	-40	100	°C	
Operating Temperature	-10	85	°C	
Continuous Forward Current		8	mA	
Continuous Reverse Voltage		3.5	V	10uA

Electro-Optical Characteristics						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Threshold Current	I_{th}		0.8	1.2	mA	
Slope Efficiency	η		0.28	0.31	W/A	I_F=6mA
Output Power	P_o		1.6	2	mW	I_F=6mA
Wavelength	λ_P	843		850	nm	I_F=6mA
Forward Voltage	V_F		2.1	2.3	V	I_F=6mA
Series Resistance	R_S		55	70	Ω	I_F=6mA
Spectral Bandwidth (RMS)	$\Delta\lambda$			0.75	nm	I_F=6mA
Beam Divergence	Θ		30	35	°	I_F=6mA (1/e^2)
Rise Times (20% to 80%)	Tr		21		ps	I_F=6mA
Fall Times (20% to 80%)	Tf		21		ps	I_F=6mA
3dB Bandwidth	BW	16	18.5		GHz	I_F=6mA

Note: All parameters except mentioned are measured at I_F=6mA, 25°C, CW operation.

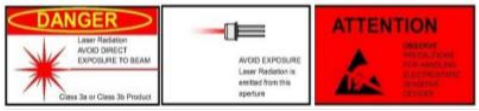
Outline Dimensions

- Chip length: 220 μm
- Chip width: 320 μm
- Chip thickness: 200 ± 20 μm



Lasermate Group, Inc.
19608 Camino De Rosa, Walnut, CA 91789, USA
Tel: (909)718-0999 | Fax: (909)718-0998 | E-mail: info@lasermate.com | URL: http://www.lasermate.com

Additional Notes



The inherent design of this component causes it to be sensitive to electrostatic discharge (ESD). To prevent ESD-induced damage and/or degradation to equipment, take normal ESD precautions when handling this product.

The VCSEL is a class IIIb laser in the safety standard ANSI Z136.1 and should be treated as a potential eye hazard. Due to the size of the component, the applicable warning logotype, aperture label, and certification/identification label cannot be placed on the component itself.

Note: Specifications are subject to change without notice.

Lasermate Group, Inc.
19608 Camino De Rosa, Walnut, CA 91789, USA
Tel: (909)718-0999 | Fax: (909)718-0998 | E-mail: info@lasermate.com | URL: http://www.lasermate.com