Ioffe Light Emitting Diodes

Distributed by **Boston Electronics Corporation**
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Specifications (T=22 ^{0}C)

Optically pumped, optically immersed 3.9 μm LED

in heat-sink optimized housing

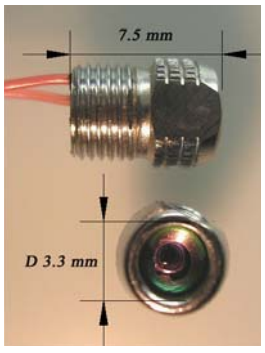
OPLED39SC

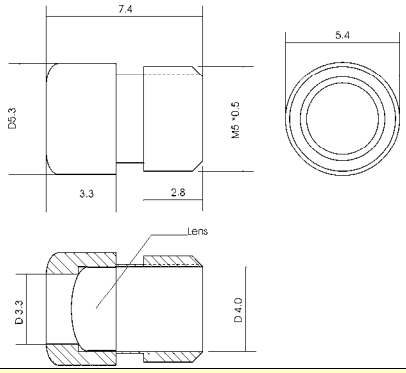
Peak wavelength		λ_{max}	μm	3.9±0.05
Spectral width FWHM			μm	0.75±0.05
Current test conditions:	Pulse duration	τ	μs	≤10
	Pulse period	T		≥1000
Voltage at drive current I=1 A		U_{pulsed}	V	2.1 to 2.3
Pulsed power at I=1 A		P_{pulsed}	μW	150 to 200
CW power of the LEDs attached to a heatsink at I=100 mA		P_{CW}	μW	30 to 40
Switching time		τ	ns	≤100

Package

Package style	Thread	Emission size	Lens material	Far-field pattern FWHM	Far-field pattern deviation	Operation (storage) conditions	Polarity
		mm		deg.	deg.	^{0}C	
Screw	M5×0.5	∅ 3.3	Si	≈30	±10	-25 to +60 (+80)	short wire or black point is negative

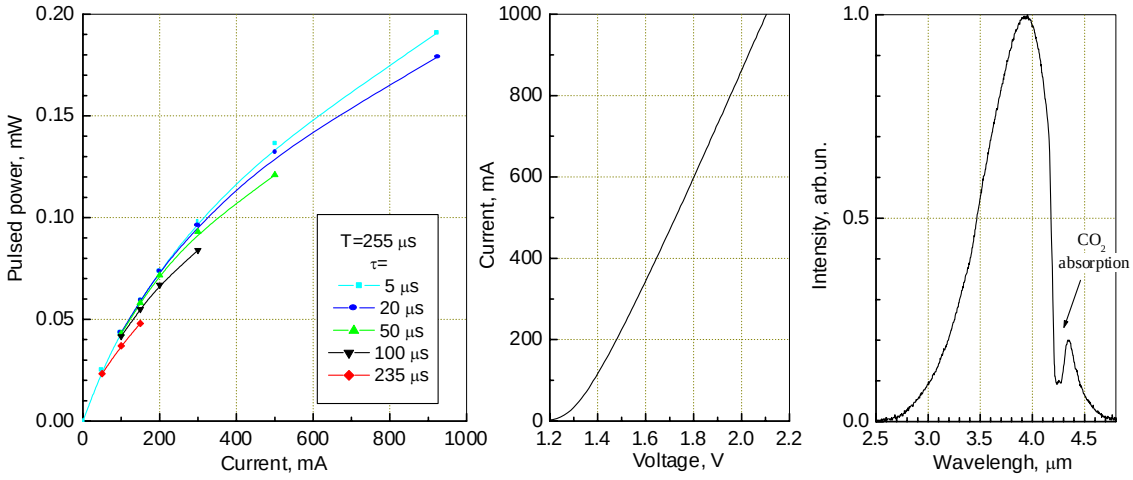
Product view



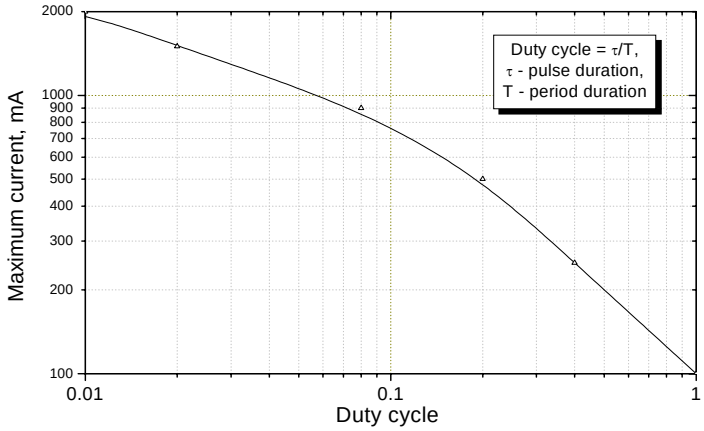


- ✓ All devices are stressed at 80^{o}C and I=100 mA (CW) for 10 hrs before final test and shipping to a customer.
- ✓ Beam divergence of the LEDs is small and thus we recommend adjusting LED position regarding to the detector system before final evaluation/use of the devices.
- ✓ Proper heat-sinking is important for normal LED operation, especially in the CW mode.

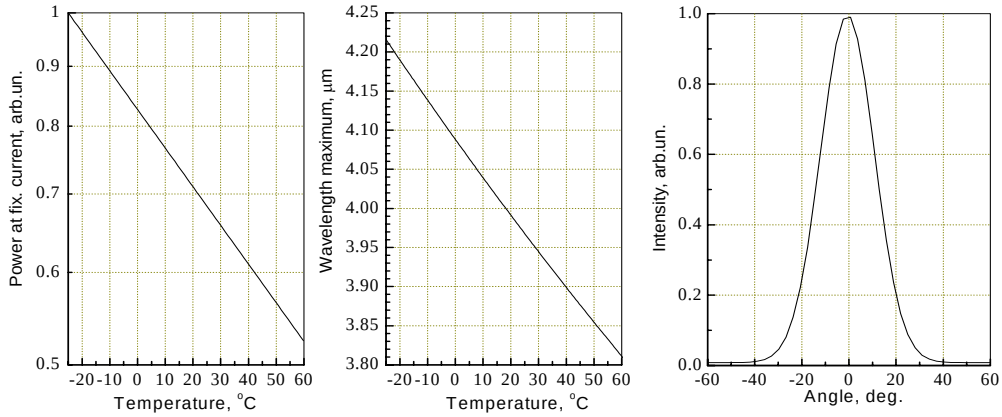
Current-voltage curve, current dependences of the output power and emission spectrum at 22 ^{0}C.



Maximum current vs. duty cycle



Output power and emission spectra maximum vs. temperature and far-field pattern



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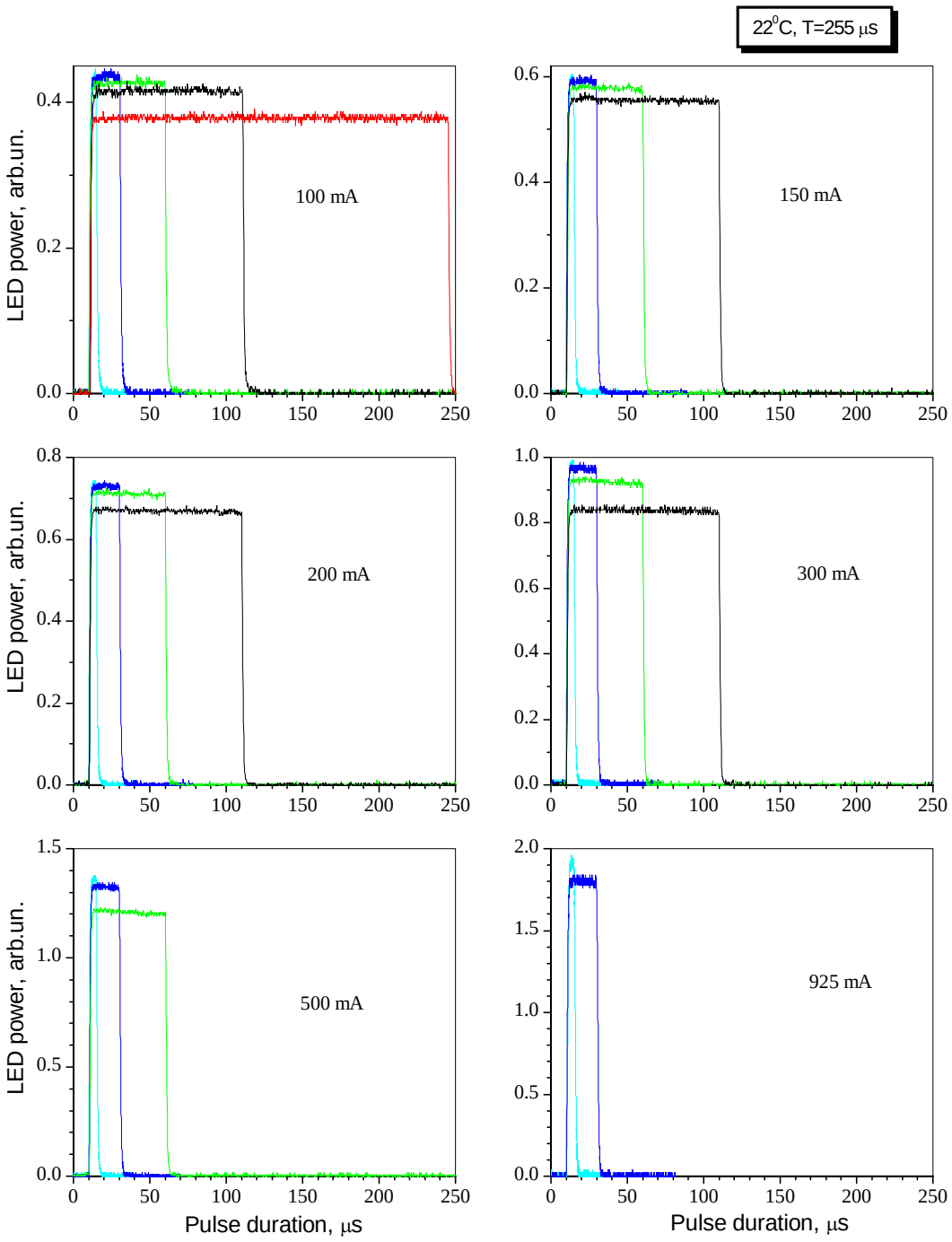
Pulsed power at different currents and pulsed duration.



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