Ioffe Light Emitting Diodes

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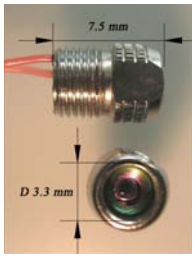
Optically Immersed 5.5 μm LED in heat-sink optimized housing			**LED55SC**
Peak wavelength	λ_{max}	μm	5.5 to 5.7
Pulsed power at I=1 A	P_{pulsed}	μW	10±2
CW power at I=150 mA	P_{CW}	μW	2±0.5
Switching time	τ	ns	≤20

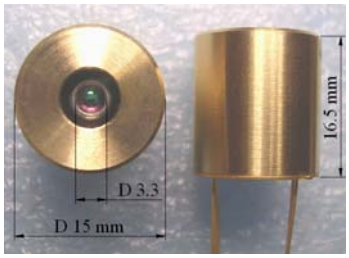
Code	Thread	Emission size, mm	Lens material	Far-field pattern FWHM, deg.	Operation (storage) conditions, ^{0}C	Polarity
LED55SC	M5×0.5	∅ 3.3	Si	≤20	-25 to +60 (+80)	short wire or black point is negative
LED55TO8TEC			Si lens and sapphire window			See fig. below

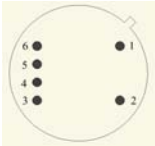
Product view

LED55SC

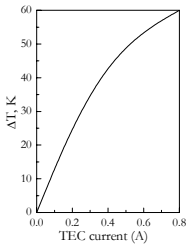


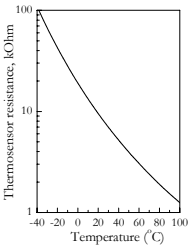
LED55TO8TEC





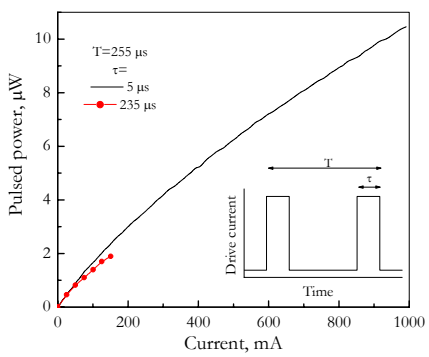
1 TEC −; 2 TEC +
3 PD +; 6 PD −
4, 5 thermosensor

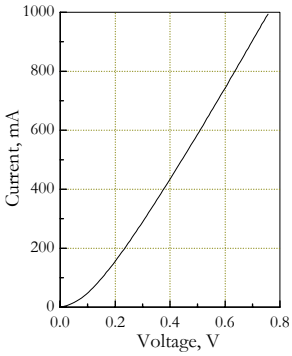


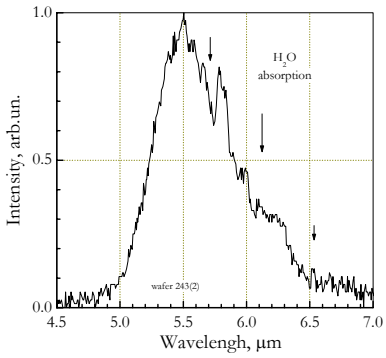
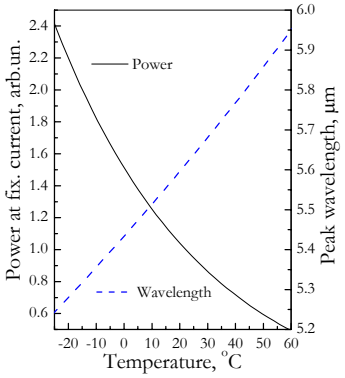
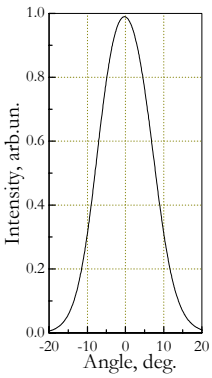
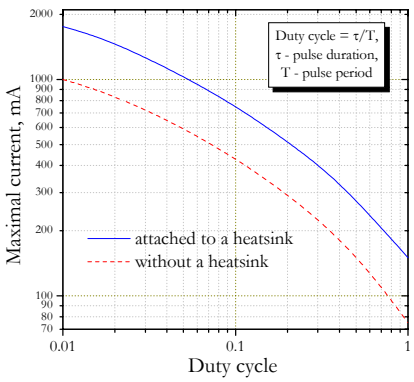


- ✓ All devices are stressed at 80ºC and I=200 mA (CW) for 10 hrs before final test and shipping to a customer.
- ✓ Beam divergence of the LEDs is small and thus we recommend adjusting LED position regarding to the detector system before final evaluation/use of the devices.
- ✓ All data are valid for room temperature (22ºC) and LED attached to a heatsink. Heatsink is important for normal LED operation especially in the CW mode.
- ✓ Available accessories include driver electronics and detectors.
- ✓ Available wavelengths include 1.9, 2.15, 3.0, 3.4, 3.6, 3.8, 4.2, 4.7, 5.5 and 7.0 μm.
- ✓ Devices emit negative luminescence at reverse bias.

Output power vs. current, current-voltage curve and emission spectrum at 22ºC







Output power and peak wavelength vs. temperature, far-field pattern and maximal current vs. operation conditions