

红外光电器件之

中红外 LED 资料

我公司同时提供:

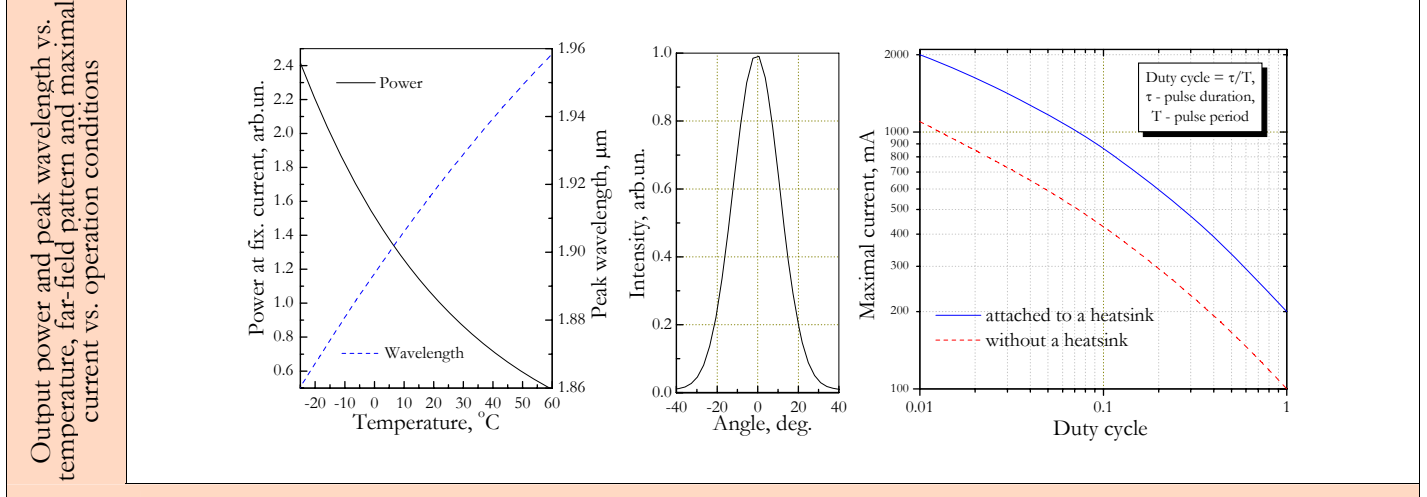
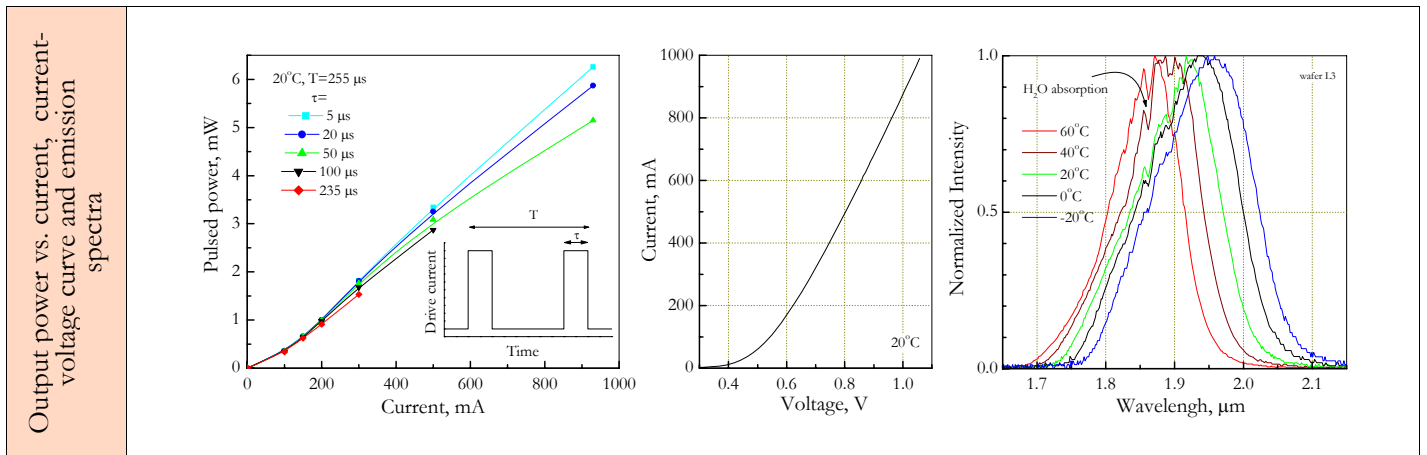
电调制脉冲红外灯泡
直流稳态红外灯泡
中红外探测器
红外反射材料
消杂光涂料

Optically Immersed 1.9 μm LED in heat-sink optimized housing				LED19Sc
Peak wavelength	λ_{max}	μm		1.95 \pm 0.05
Pulsed power at I=1 A	P_{pulsed}	mW		6.0 \pm 1.2
CW power at I=200 mA	P_{CW}	mW		1.0 \pm 0.2
Switching time	τ	ns		\leq 20

Code	Thread	Emission size, mm	Lens material	Far-field pattern FWHM, deg.	Operation (storage) conditions, °C	Polarity
LED19Sc	M5 \times 0.5	\varnothing 3.3	Si	\leq 35	-25 \div +60 (+80)	short wire or black point is negative
LED19TO8TEC			Si lens and quartz window			See fig. below

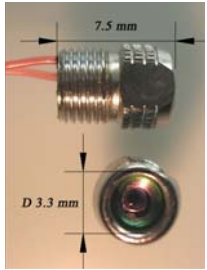
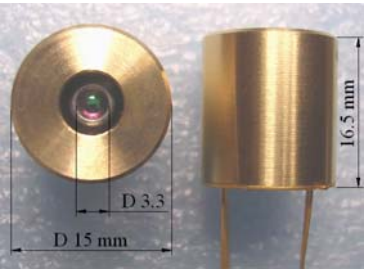
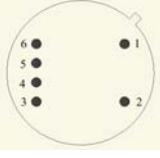
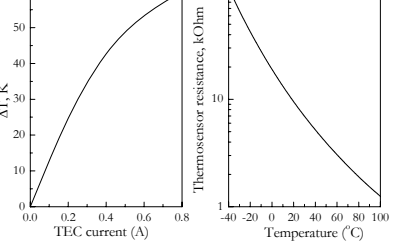
	LED19Sc	LED19TO8TEC
Product view		 1 TEC -; 2 TEC + 3 PD +; 6 PD - 4, 5 thermosensor

- ✓ All devices are stressed at 80°C 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 (22°C) 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 .

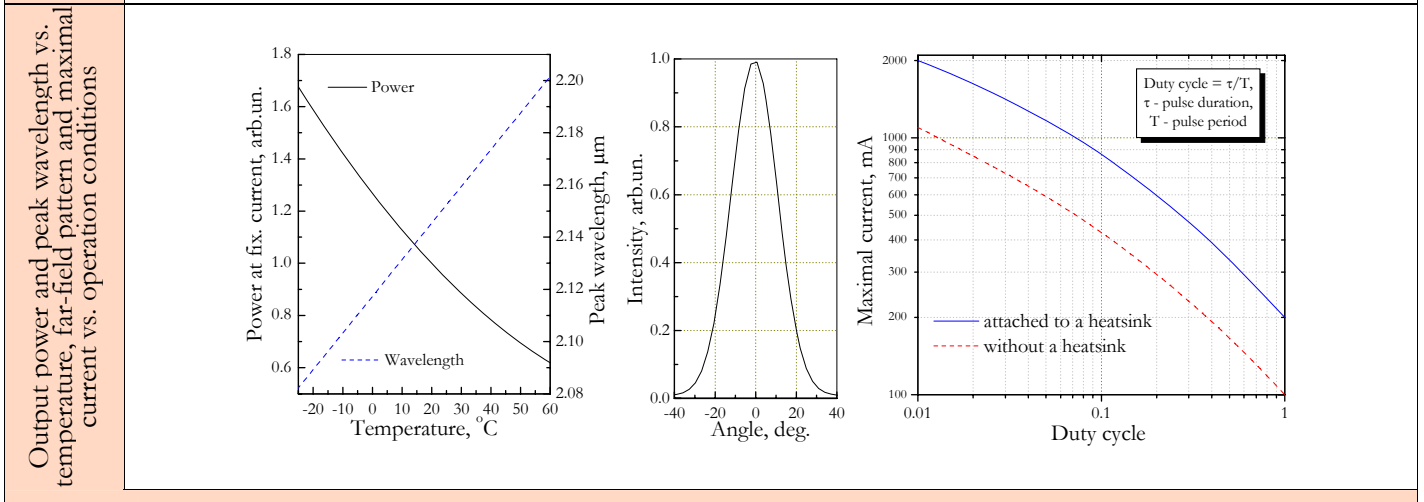
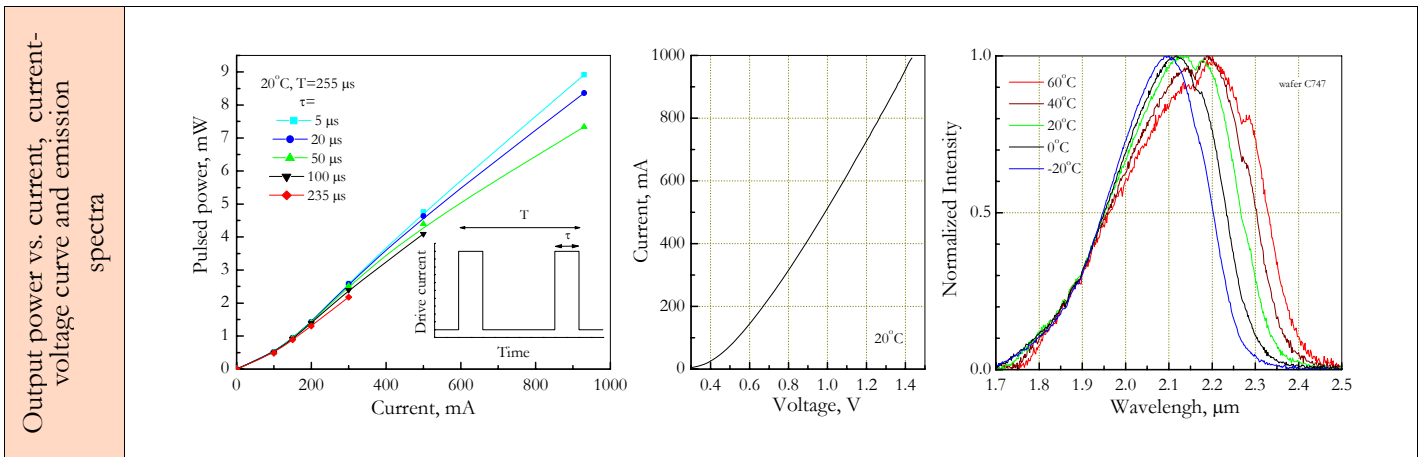


Optically Immersed 2.15 μm LED in heat-sink optimized housing				LED21Sc
Peak wavelength	λ_{max}	μm		2.15 \pm 0.05
Pulsed power at I=1 A	P_{pulsed}	mW		9.0 \pm 2.0
CW power at I=200 mA	P_{CW}	mW		1.3 \pm 0.25
Switching time	τ	ns		\leq 20

Code	Thread	Emission size, mm	Lens material	Far-field pattern FWHM, deg.	Operation (storage) conditions, °C	Polarity
LED21Sc	M5 \times 0.5	\varnothing 3.3	Si	\leq 35	-25 \div +60 (+80)	short wire or black point is negative
LED21TO8TEC			Si lens and quartz window			See fig. below

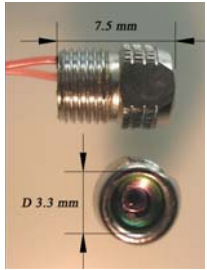
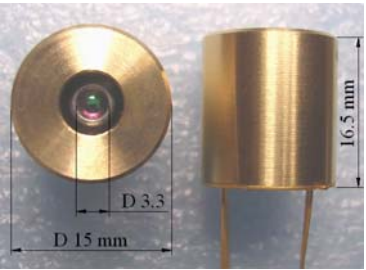
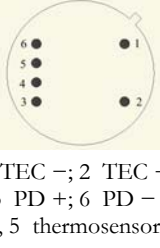
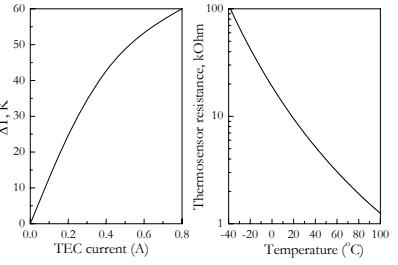
	LED21Sc	LED21TO8TEC
Product view		  <p>1 TEC -; 2 TEC + 3 PD +; 6 PD - 4, 5 thermosensor</p> 

- ✓ All devices are stressed at 80°C 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 (22°C) 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 .

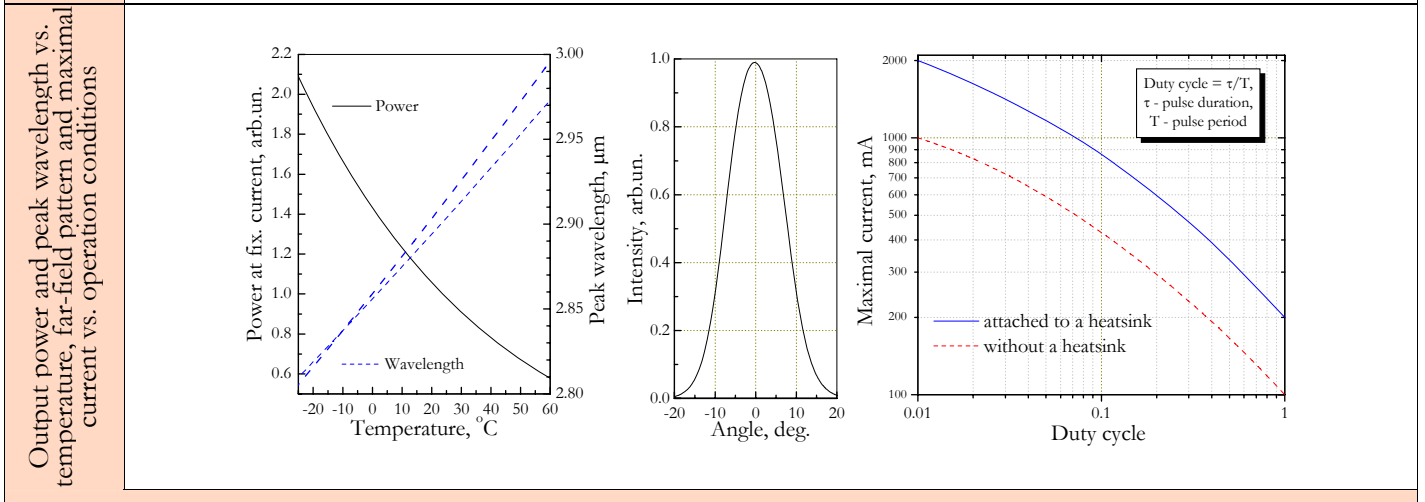
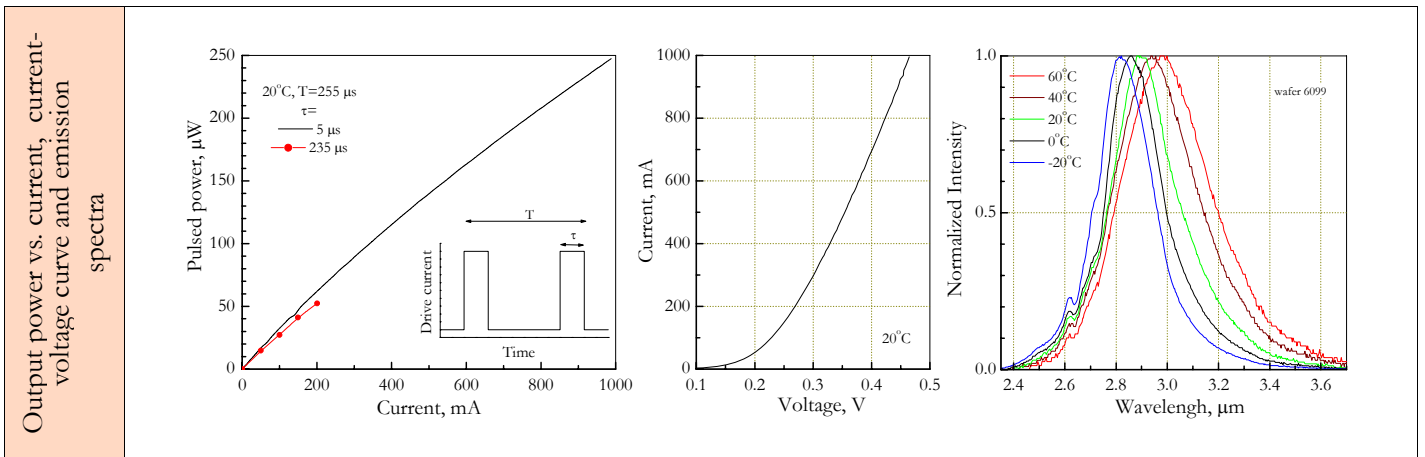


Optically Immersed 3.0 μm LED in heat-sink optimized housing				LED30Sc
Peak wavelength	λ_{max}	μm		2.95 \pm 0.05
Pulsed power at I=1 A	P_{pulsed}	μW		250 \pm 50
CW power at I=200 mA	P_{CW}	μW		50 \pm 10
Switching time	τ	ns		\leq 20

Code	Thread	Emission size, mm	Lens material	Far-field pattern FWHM, deg.	Operation (storage) conditions, °C	Polarity
LED30Sc	M5 \times 0.5	\varnothing 3.3	Si	\leq 20	-25 \div +60 (+80)	short wire or black point is negative
LED30TO8TEC			Si lens and quartz window			See fig. below

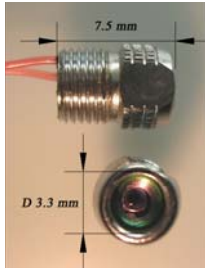
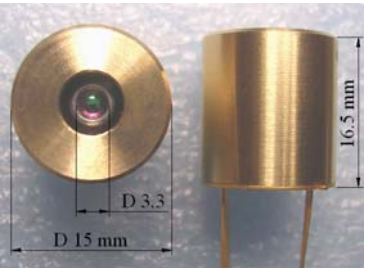
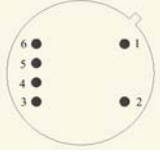
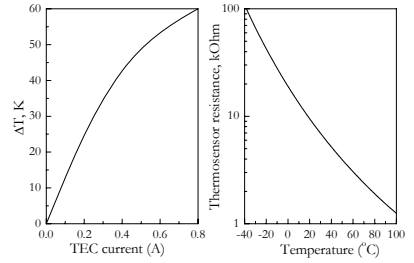
	LED30Sc	LED30TO8TEC
Product view		  1 TEC -; 2 TEC + 3 PD +; 6 PD - 4, 5 thermosensor
		

- ✓ All devices are stressed at 80°C 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 (22°C) and LED attached to a heatsink. Heatsink is important for normal LED operation especially in the CW mode.
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- ✓ 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 .

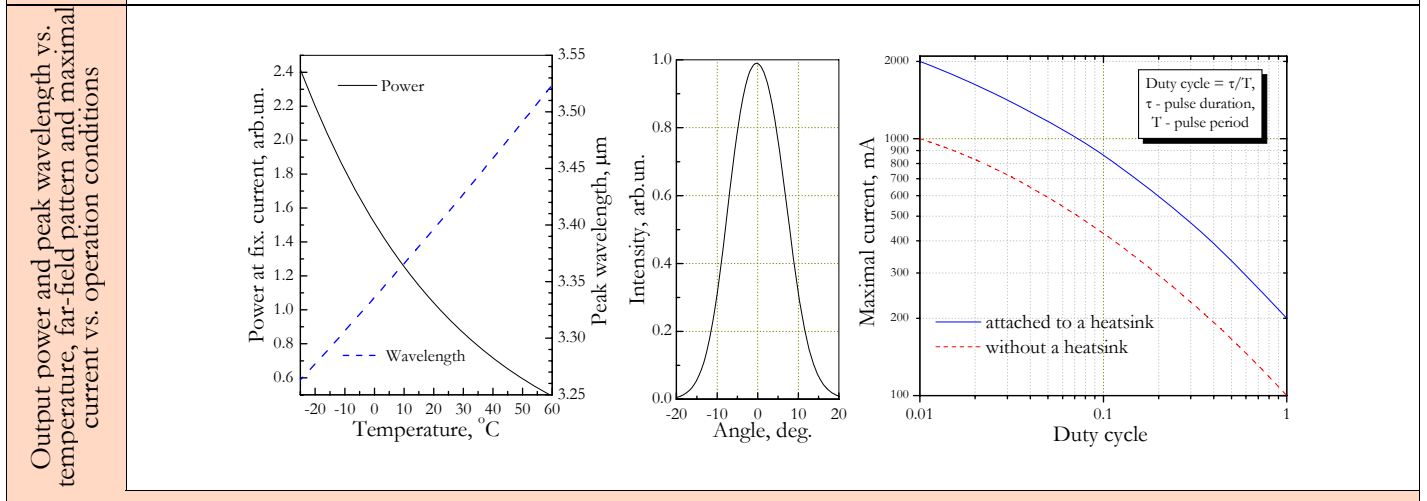
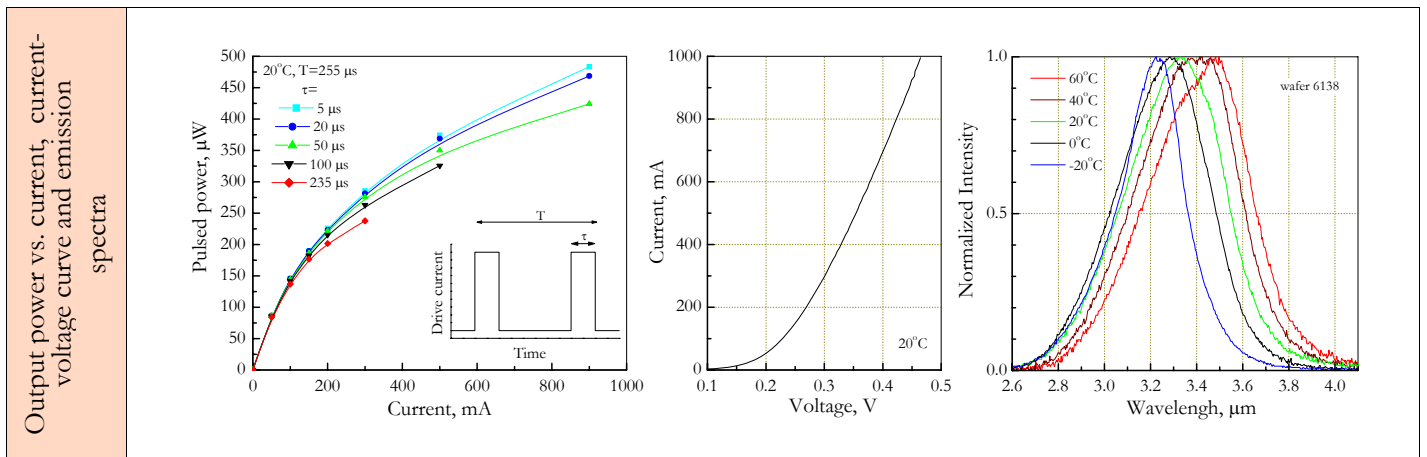


Optically Immersed 3.4 μm LED in heat-sink optimized housing				LED34Sc
Peak wavelength	λ_{max}	μm		3.4 ± 0.05
Pulsed power at I=1 A	P_{pulsed}	μW		500 ± 100
CW power at I=200 mA	P_{CW}	μW		200 ± 40
Switching time	τ	ns		≤ 20

Code	Thread	Emission size, mm	Lens material	Far-field pattern FWHM, deg.	Operation (storage) conditions, °C	Polarity
LED34Sc	M5×0.5	Ø 3.3	Si	≤ 20	-25÷+60 (+80)	short wire or black point is negative
LED34TO8TEC			Si lens and quartz window			See fig. below

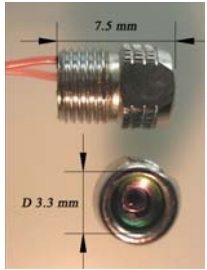
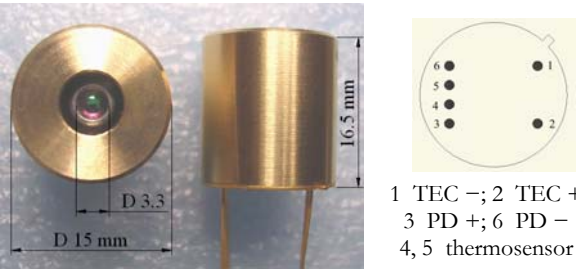
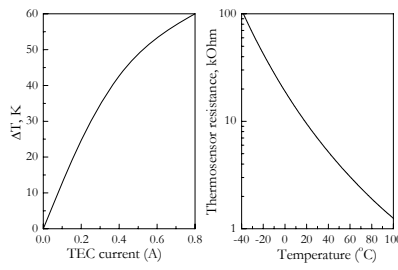
	LED34Sc	LED34TO8TEC
Product view		  <p>1 TEC -; 2 TEC + 3 PD +; 6 PD - 4, 5 thermosensor</p> 

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- ✓ 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.
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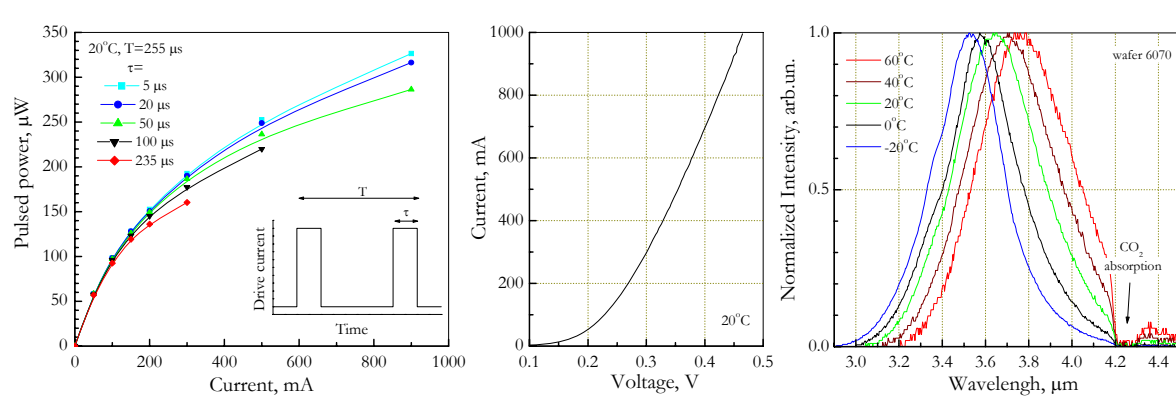


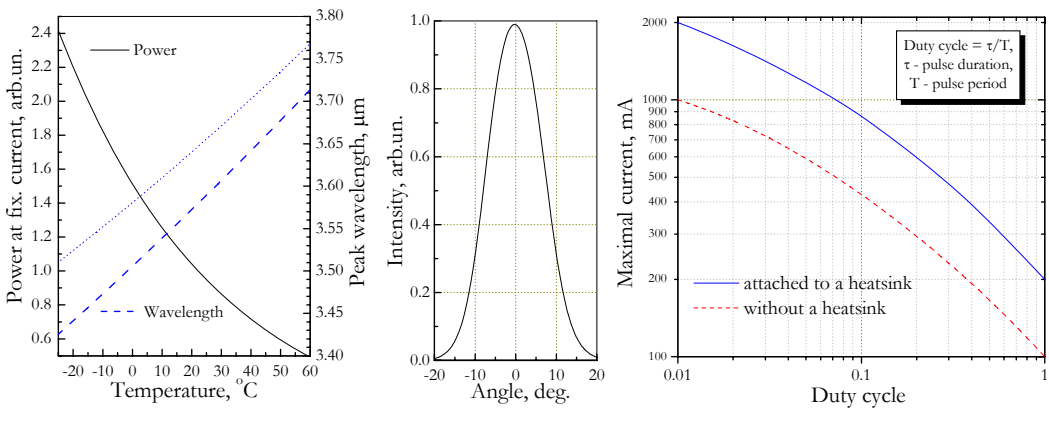
Optically Immersed 3.6 μm LED in heat-sink optimized housing				LED36Sc
Peak wavelength	λ_{max}	μm		3.65 \pm 0.05
Pulsed power at I=1 A	P_{pulsed}	μW		350 \pm 70
CW power at I=200 mA	P_{CW}	μW		135 \pm 25
Switching time	τ	ns		\leq 20

Code	Thread	Emission size, mm	Lens material	Far-field pattern FWHM, deg.	Operation (storage) conditions, °C	Polarity
LED36Sc	M5 \times 0.5	\varnothing 3.3	Si	\leq 20	-25 \div +60 (+80)	short wire or black point is negative
LED36TO8TEC			Si lens and quartz window			See fig. below

	LED36Sc	LED36TO8TEC
Product view		
		

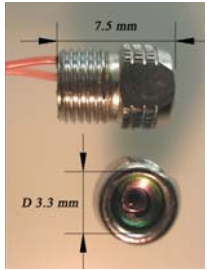
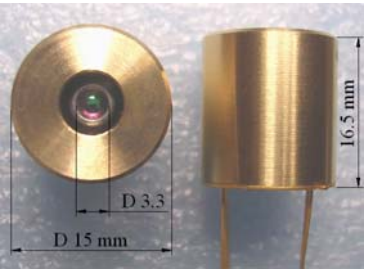
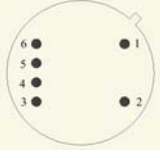
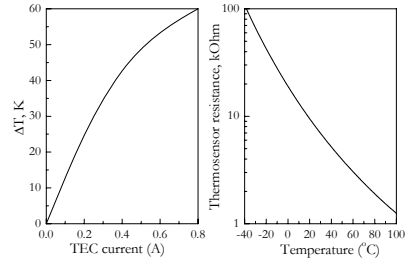
- ✓ All devices are stressed at 80°C and I=200 mA (CW) for 10 hrs before final test and shipping to a customer.
- ✓ Beam divergence of the LEDs is small and thus we recommend adjusting LED position regarding to the detector system before final evaluation/use of the devices.
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- ✓ 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 .

Output power vs. current, current-voltage curve and emission spectra


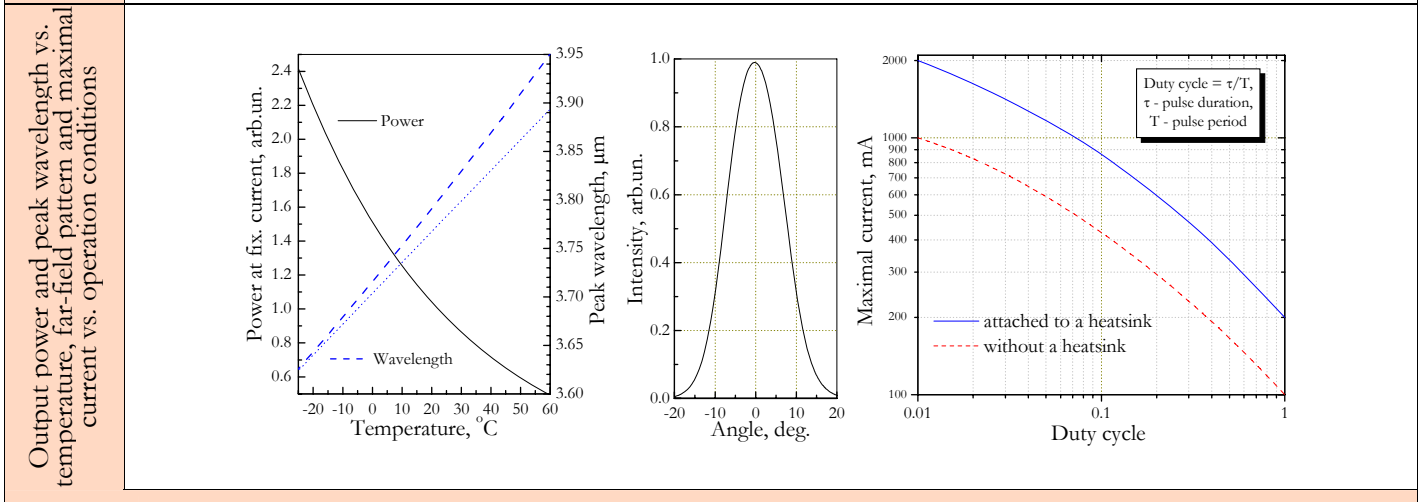
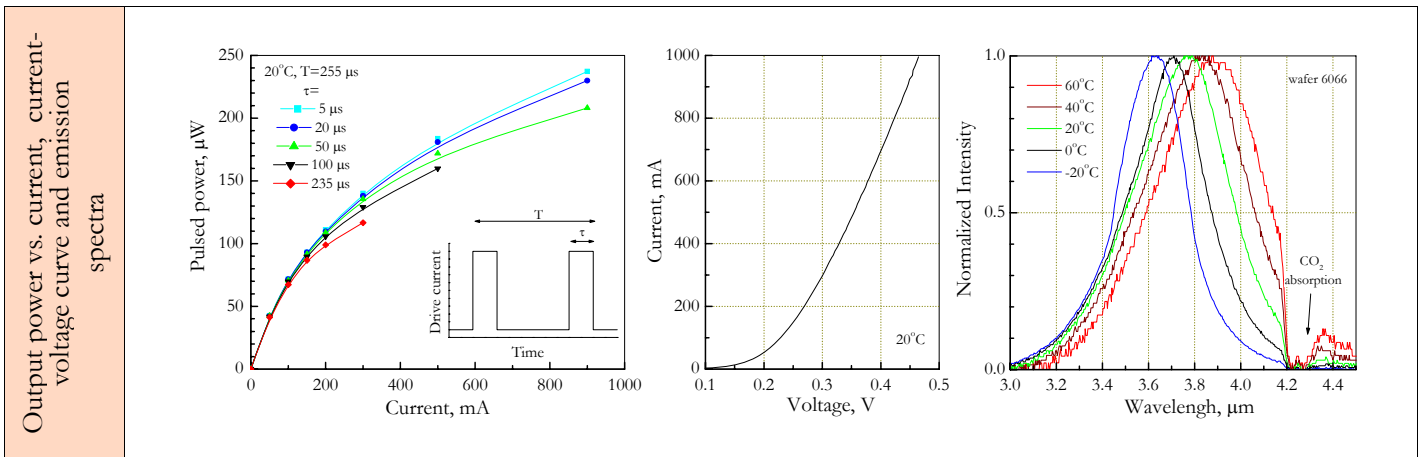
Output power and peak wavelength vs. temperature, far-field pattern and maximal current vs. operation conditions


Optically Immersed 3.8 μm LED in heat-sink optimized housing				LED38Sc
Peak wavelength	λ_{max}	μm		3.85 \pm 0.05
Pulsed power at I=1 A	P_{pulsed}	μW		250 \pm 50
CW power at I=200 mA	P_{CW}	μW		100 \pm 20
Switching time	τ	ns		\leq 20

Code	Thread	Emission size, mm	Lens material	Far-field pattern FWHM, deg.	Operation (storage) conditions, °C	Polarity
LED38Sc	M5 \times 0.5	\varnothing 3.3	Si	\leq 20 (Si lens)	-25 \div +60 (+80)	short wire or black point is negative
LED38TO8TEC			Si lens and quartz window			See fig. below

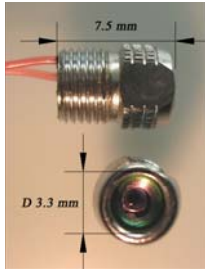
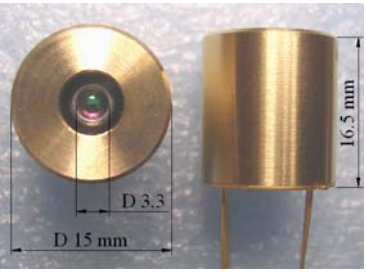
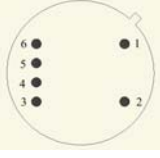
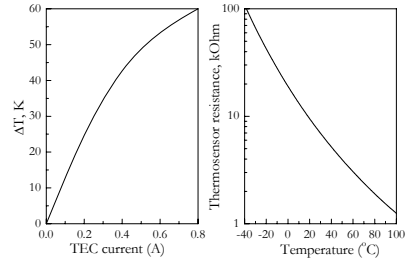
	LED38Sc	LED38TO8TEC
Product view		  1 TEC -; 2 TEC + 3 PD +; 6 PD - 4, 5 thermosensor
		

- ✓ All devices are stressed at 80°C and I=200 mA (CW) for 10 hrs before final test and shipping to a customer.
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- ✓ All data are valid for room temperature (22°C) 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 .

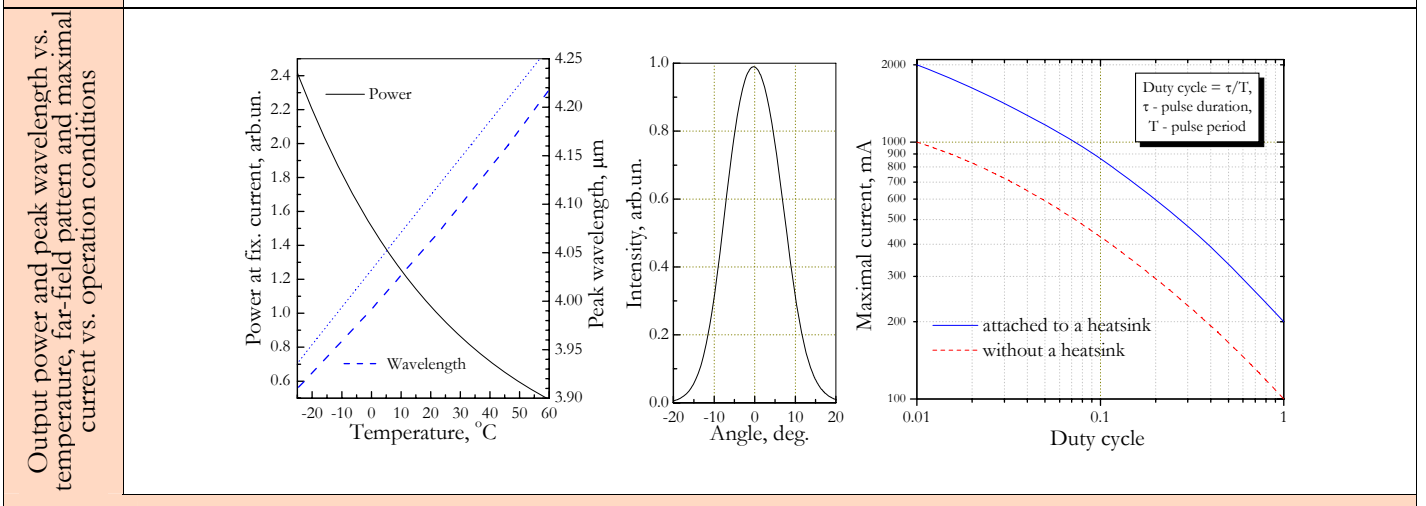
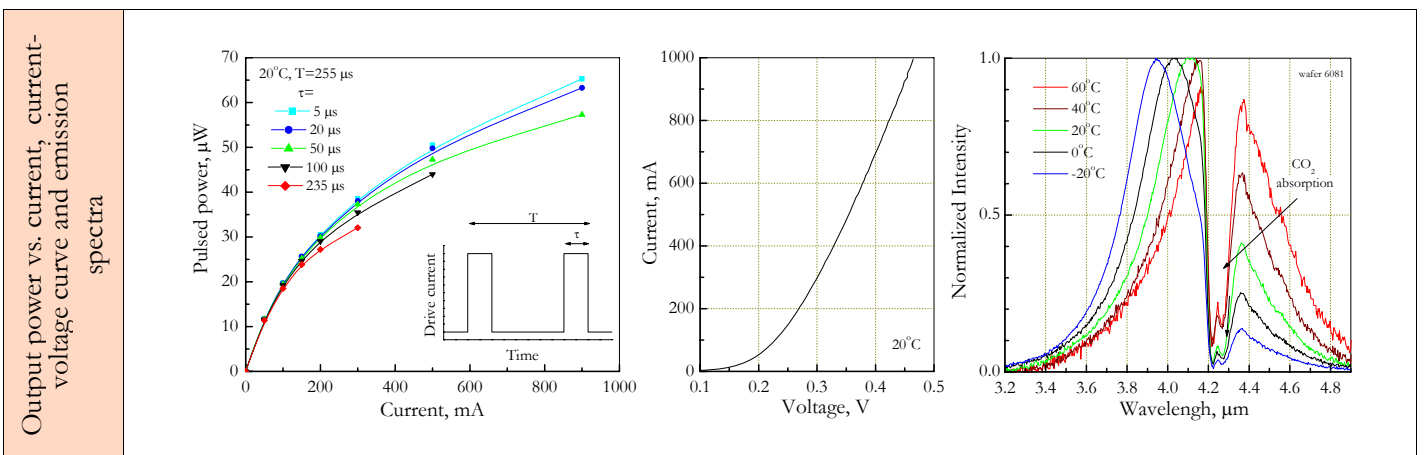


Optically Immersed 4.2 μm LED in heat-sink optimized housing				LED42Sc
Peak wavelength	λ_{max}	μm		4.2 \pm 0.1
Pulsed power at I=1 A	P_{pulsed}	μW		70 \pm 15
CW power at I=200 mA	P_{CW}	μW		25 \pm 5
Switching time	τ	ns		\leq 20

Code	Thread	Emission size, mm	Lens material	Far-field pattern FWHM, deg.	Operation (storage) conditions, °C	Polarity
LED42Sc	M5 \times 0.5	\varnothing 3.3	Si	\leq 20	-25 \div +60 (+80)	short wire or black point is negative
LED42TO8TEC			Si lens and sapphire window			See fig. below

	LED42Sc	LED42TO8TEC
Product view		  <p>1 TEC -; 2 TEC + 3 PD +; 6 PD - 4, 5 thermosensor</p> 

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- ✓ 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 (22°C) 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.

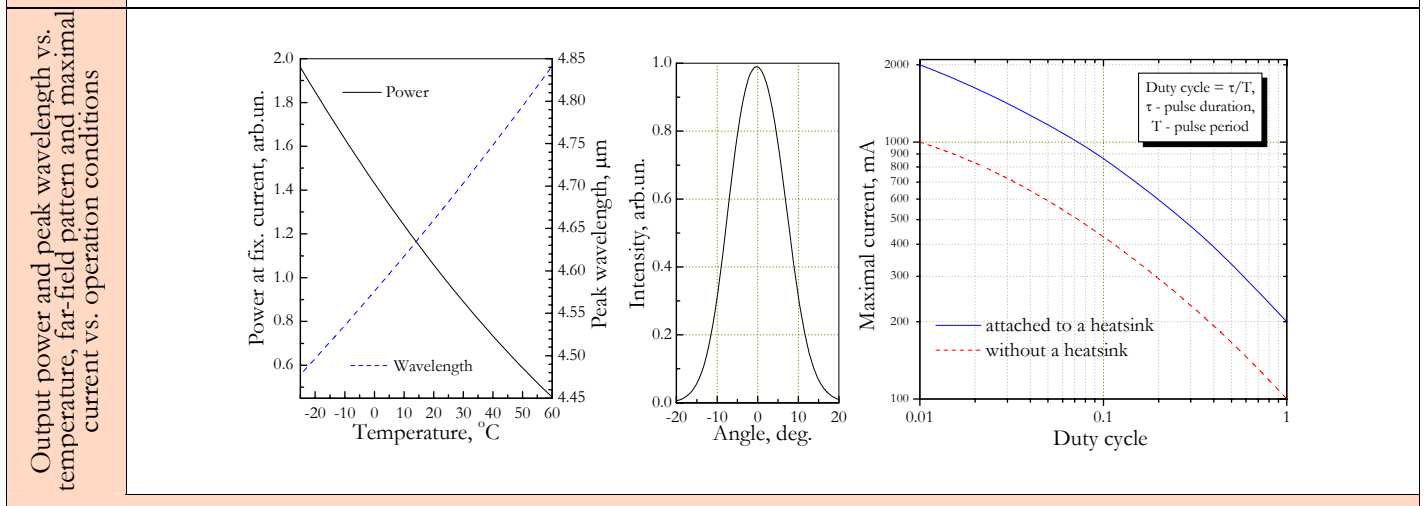
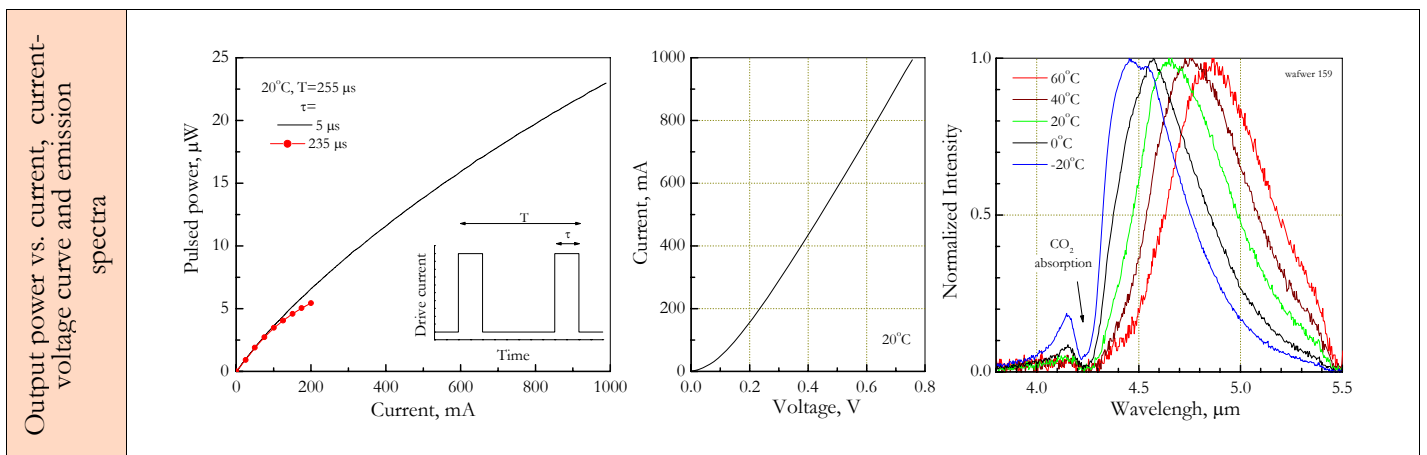


Optically Immersed 4.7 μm LED in heat-sink optimized housing				LED47Sc
Peak wavelength	λ_{max}	μm		4.7 \pm 0.05
Pulsed power at I=1 A	P_{pulsed}	μW		25 \pm 5
CW power at I=200 mA	P_{CW}	μW		5 \pm 1
Switching time	τ	ns		\leq 20

Code	Thread	Emission size, mm	Lens material	Far-field pattern FWHM, deg.	Operation (storage) conditions, °C	Polarity
LED47Sc	M5 \times 0.5	\varnothing 3.3	Si	\leq 20	-25 \div +60 (+80)	short wire or black point is negative
LED47TO8TEC			Si lens and sapphire window			See fig. below

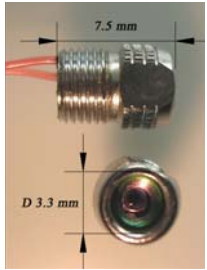
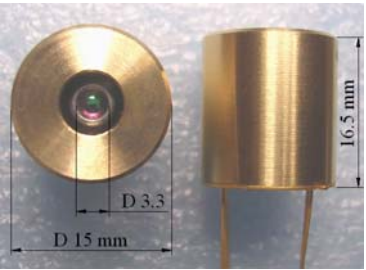
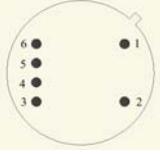
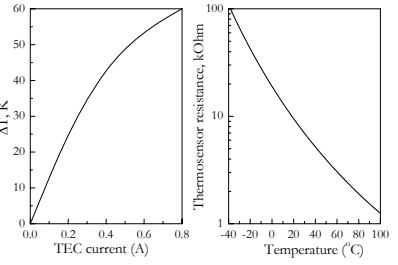
	LED47Sc	LED47TO8TEC
Product view		<p>1 TEC -; 2 TEC + 3 PD +; 6 PD - 4, 5 thermosensor</p>

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- ✓ 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.

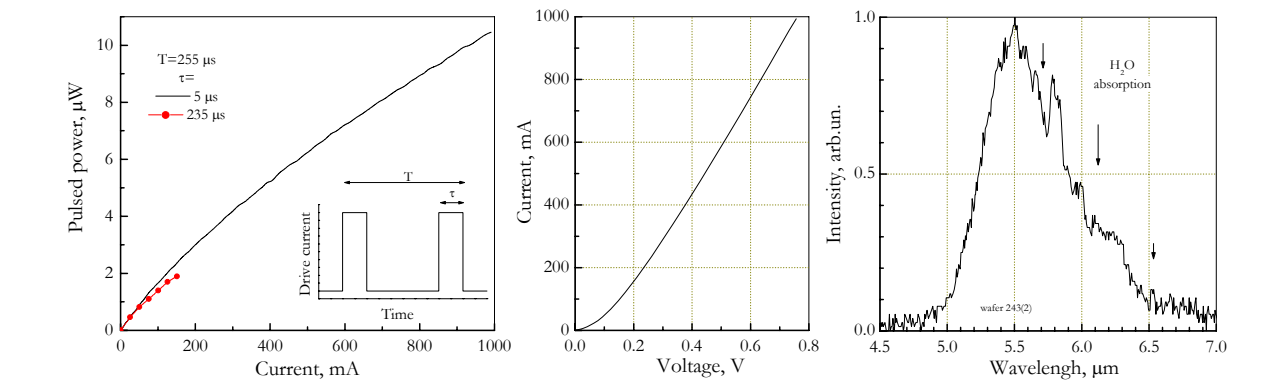


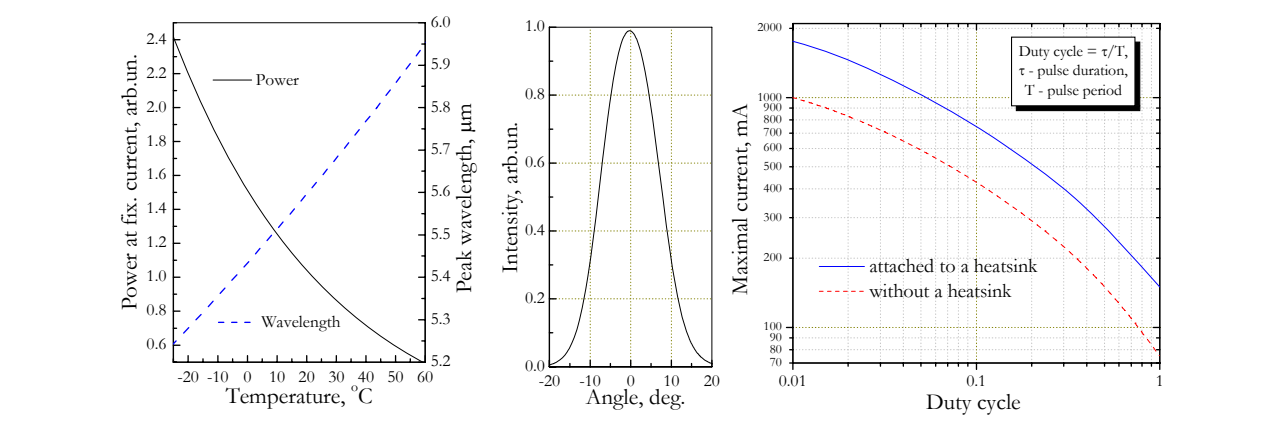
Optically Immersed 5.5 μm LED in heat-sink optimized housing				LED55Sc
Peak wavelength	λ_{max}	μm		5.5 \div 5.7
Pulsed power at I=1 A	P_{pulsed}	μW		10 \pm 2
CW power at I=150 mA	P_{CW}	μW		2 \pm 0.5
Switching time	τ	ns		\leq 20

Code	Thread	Emission size, mm	Lens material	Far-field pattern FWHM, deg.	Operation (storage) conditions, °C	Polarity
LED55Sc	M5 \times 0.5	\varnothing 3.3	Si	\leq 20	-25 \div +60 (+80)	short wire or black point is negative
LED55TO8TEC			Si lens and sapphire window			See fig. below

	LED55Sc	LED55TO8TEC
Product view		  <p>1 TEC -; 2 TEC + 3 PD +; 6 PD - 4, 5 thermosensor</p>
		

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- ✓ 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 22°C


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


Optically Immersed 7.0 μm LED in heat-sink optimized housing				OPLED70
Peak wavelength	λ_{max}	μm	6.5÷7.0	
Pulsed power at I=1 A	P_{pulsed}	μW	10±2	
CW power at I=100 mA	P_{CW}	μW	1.8±0.3	
Switching time	τ	ns	≤50	

Code	Emission size, mm	Lens material	Far-field pattern FWHM, deg.	Operation (storage) conditions, °C	Polarity
OPLED70	Ø 3.3	CdSb	≤40	-25÷+40	short leg or key is negative
OPLED70TO8TEC		CdSb lens and sapphire window			See fig. below

	OPLED70	OPLED70TO8TEC
Product view		<p>1 TEC -; 2 TEC + 3 PD +; 6 PD - 4, 5 thermosensor</p>

- ✓ All devices are stressed at 80°C 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 (22°C) and LED attached to a heatsink. Heatsink is important for normal LED operation especially in the CW mode.
- ✓ Available accessories include driver electronics.
- ✓ 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.

