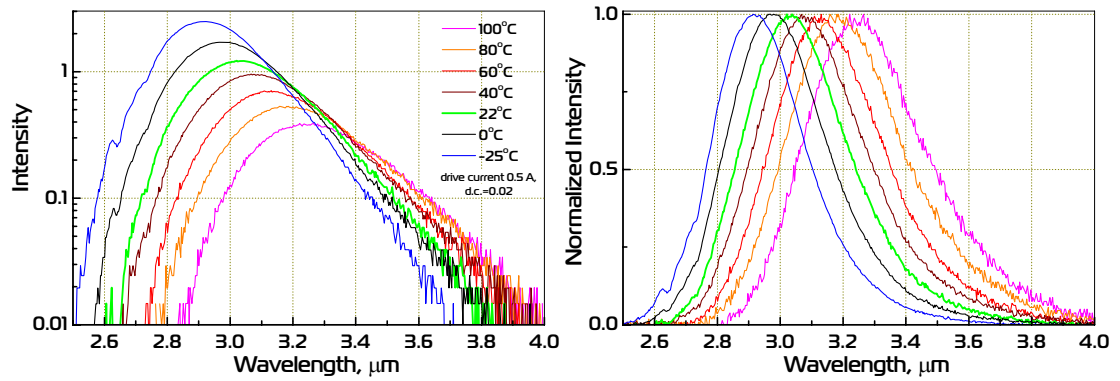


Code	Emission size, mm	Weight, g	Optical components	Far-field pattern FWHM, deg.	Optical axis deviation, deg.	Optical power deviation in lot, %	Operation conditions, °C	Lifetime, hrs
LED30Su LED30Sr	Ø 3.2	~0.4	Si lens	~15	≤5	±25	-60÷+120 ³	>80 000 _s
LED30 TO8TEC		~10	Si lens and output sapphire window D=6mm				-60÷+85 ⁴	

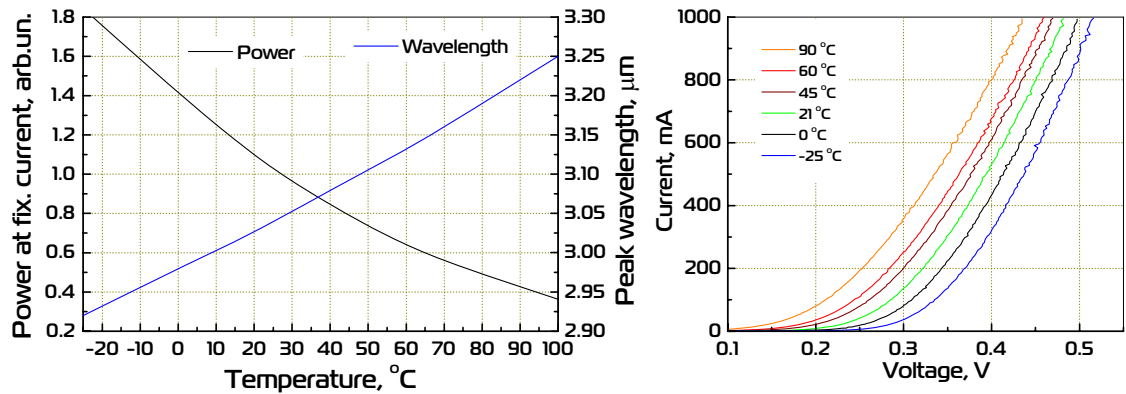
1 TEC negative;
3 TEC positive;
4 LED negative;
6 LED positive;
7, 9 thermosensor;
11 $\perp$ (House)

www.boselec.com | boselec@boselec.com | 617-566-3821

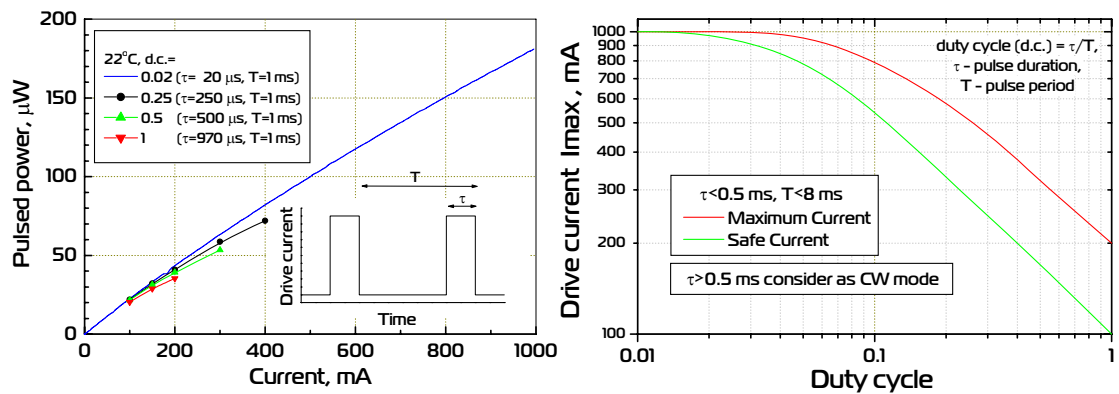
Emission spectra



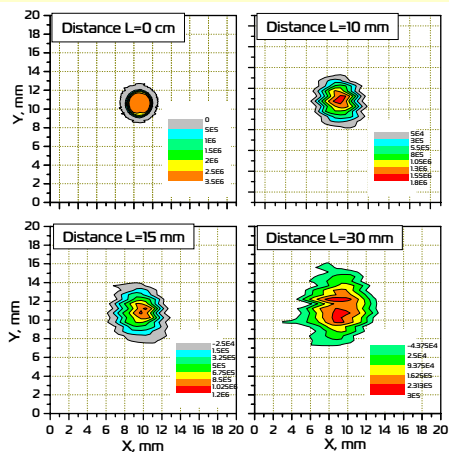
Power and peak wavelength vs. temperature; I – V curve



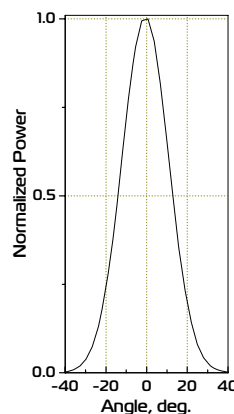
Output power and drive current vs operation conditions



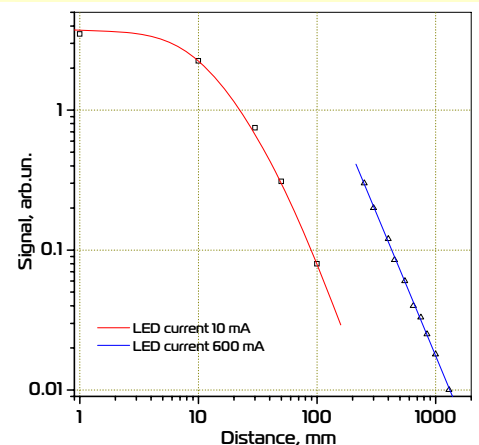
Radiation beam pattern in plane orthogonal to beam axis at several distances from LED



Angle distribution of output power



PD signal (PDxxSr/Su) vs. distance from activated LED



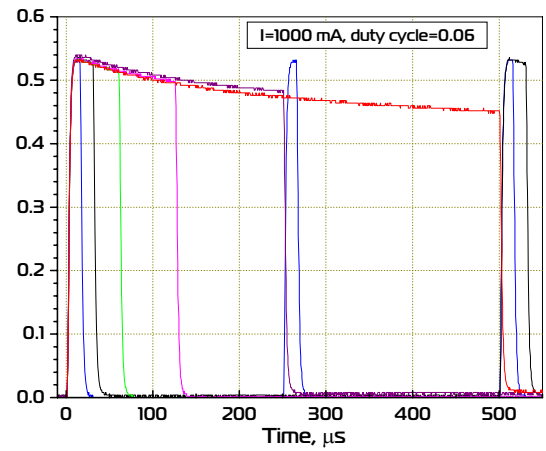
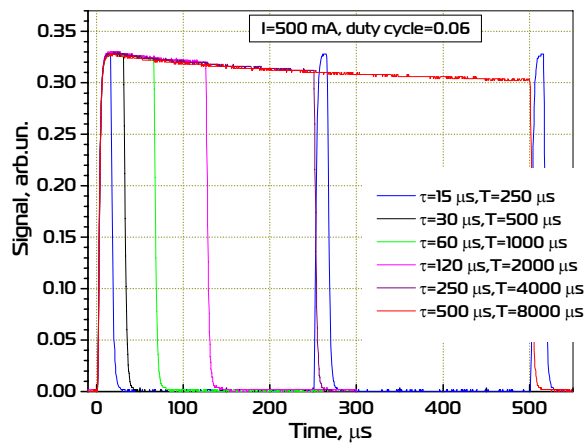
Far-field characterization

Time dependence of the output power for several values of d.c. and currents (LED attached to a heatsink at room temperature).

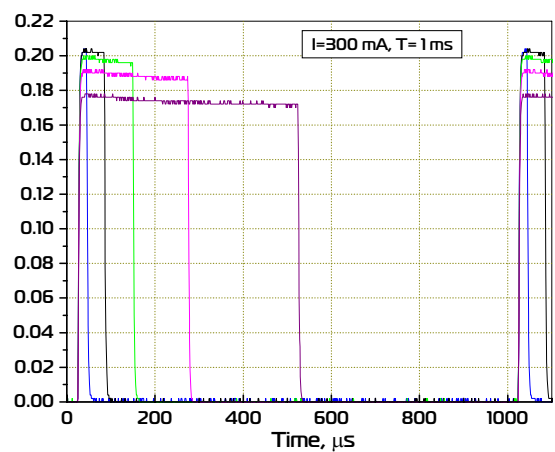
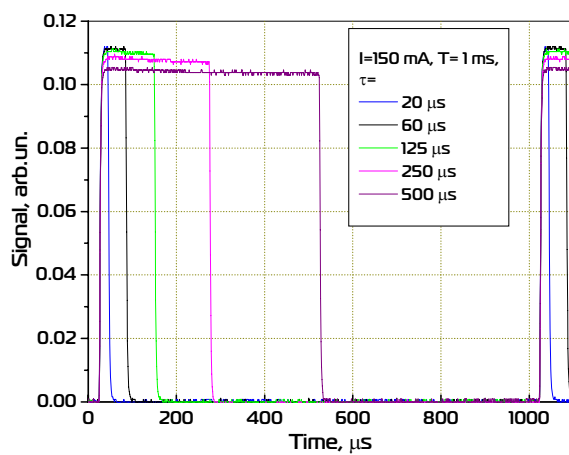
“Safe” operation mode

“Maximum current” operation mode

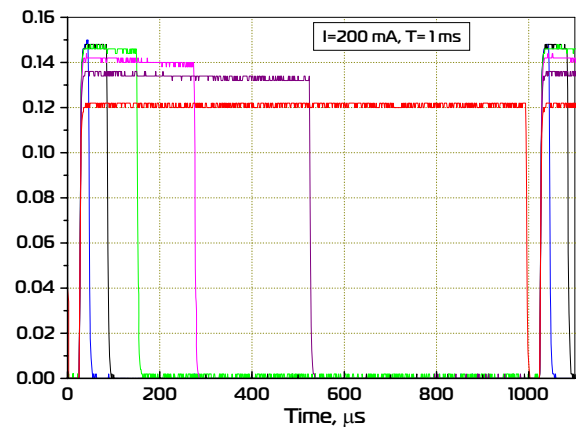
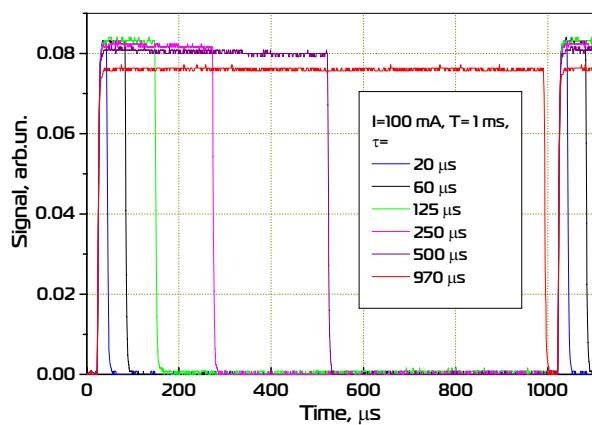
Pulse operation (d.c.=0.06)



Quasi CW mode (d.c.=0.5)



CW mode (d.c.=1)



Thermoelectric cooling module datasheet

Mounted TEC	H, mm	$\Delta T_{\max}$, K	$Q_{\max}$, W	$I_{\max}$, A	$U_{\max}$, V	R_{θ} , K/W
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1MC06-024/1-15

2.6

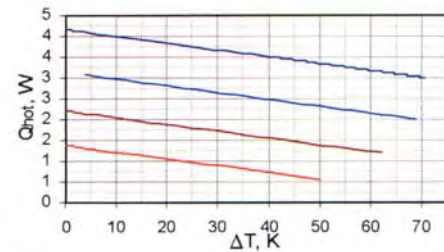
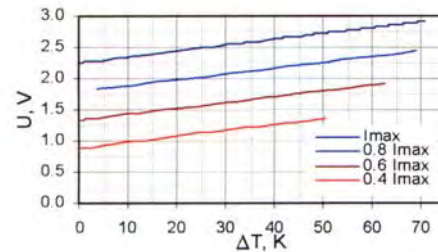
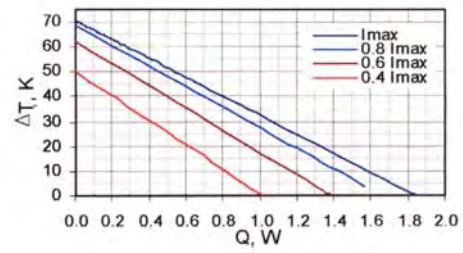
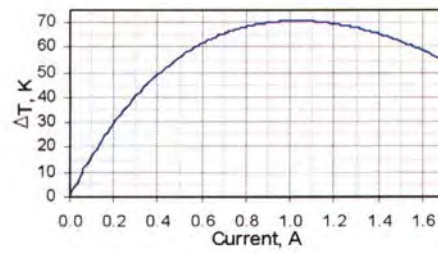
70

1.86

1.0

2.78

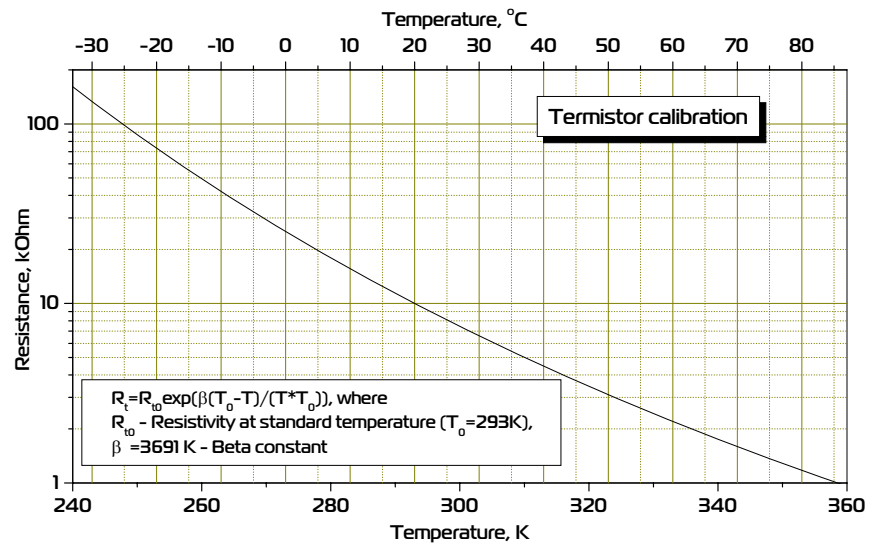
1.07

Data for $T_{\text{hot}} = 300$ K, from www.tec-microsystems.com; www.rmtitd.ru

Thermistor specification

T, °C	R, kΩ	T, °C	R, kΩ
-60	1134.5	15	12.44
-55	762.4	20	10.00
-50	521.6	25	8.09
-45	362.8	25	8.09
-40	256.3	30	6.60
-35	183.8	35	5.41
-30	133.6	40	4.47
-25	98.3	45	3.71
-20	73.3	50	3.10
-15	55.2	55	2.61
-10	42.1	60	2.20
-5	32.4	65	1.87
0	25.2	70	1.59
5	19.7	75	1.37
10	15.6	80	1.18

Type TB04-103

Possible TEC
heatsink view