

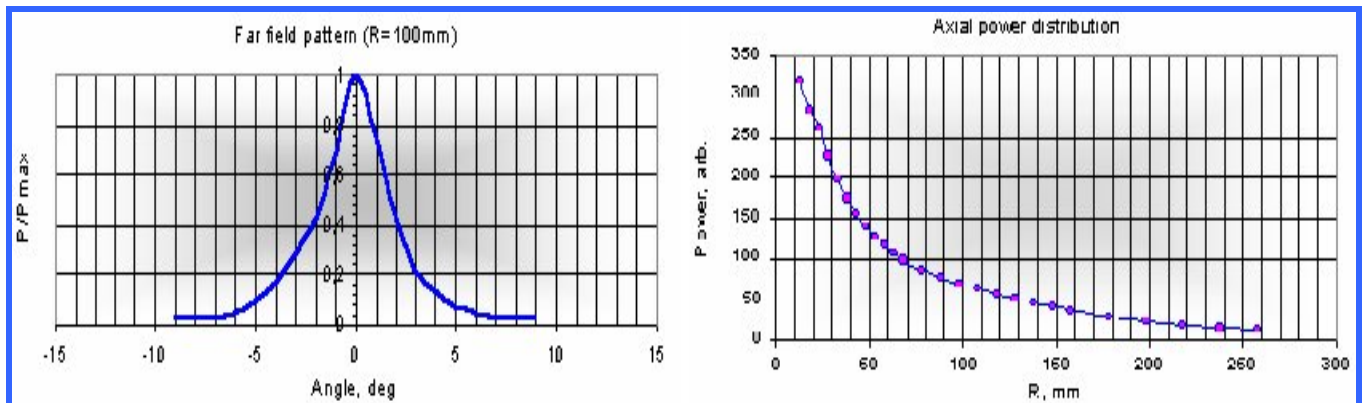


## IBSG Infra Red Light Emitting Diodes



IBSG Co., Ltd manufactures and tests a complete range of optoelectronic devices. Epitaxy process units include LPE and MOCVD plants. The manufacturing process provides economic efficiency and reliability, combined with the most up-to-date techniques like thin-layer and quantum-well creation.

No other company in the world manufactures a complete family of LED's in the 1600 to 3000nm spectral range and only very few companies manufacture a family of semiconductor lasers of 1600 to 4600nm range. IBSG has been successful in the rapidly changing mid IR photodiodes market. They have been at the forefront in developing higher power and novel structure diodes, extending LED lifetime and stability, designing new thermo-cooled LED's, creating novel position-sensitive photodiodes, and interfacing lasers, LED's and photodiodes with optical fibre.





## Standard IBSG Light Emitting Diodes

IBSG LED's are available in the following packages: TO-18, TO-18 with parabolic reflector, TO-18 with parabolic reflector and window, TO-5 with thermocooler and thermoresistor, TO-5 with parabolic reflector, thermocooler and thermoresistor.

Model	Wavelength	FWHM	Package	Optical Power	Emitting Area Dia.
LED16	1.6 to 1.7 $\mu\text{m}$	0.15 $\mu\text{m}$	TO-18 TO-18+PR TO-18+PRW TO-5 TO-5+PR	0.75 $\mu\text{A}$	300 $\mu\text{m}$
LED17	1.7 to 1.8 $\mu\text{m}$	0.15 $\mu\text{m}$		0.90 $\mu\text{A}$	
LED18	1.8 to 1.9 $\mu\text{m}$	0.15 $\mu\text{m}$		0.90 $\mu\text{A}$	
LED19	1.9 to 2.0 $\mu\text{m}$	0.15 $\mu\text{m}$		0.90 $\mu\text{A}$	
LED20	2.0 to 2.1 $\mu\text{m}$	0.20 $\mu\text{m}$		0.80 $\mu\text{A}$	
LED21	2.1 to 2.2 $\mu\text{m}$	0.20 $\mu\text{m}$		0.80 $\mu\text{A}$	
LED22	2.2 to 2.3 $\mu\text{m}$	0.24 $\mu\text{m}$		0.80 $\mu\text{A}$	
LED23	2.3 to 2.4 $\mu\text{m}$	0.26 $\mu\text{m}$		0.80 $\mu\text{A}$	
LED27	2.6 to 2.8 $\mu\text{m}$	0.50 $\mu\text{m}$		10 $\mu\text{A}$	
LED29	2.8 to 3.0 $\mu\text{m}$	0.80 $\mu\text{m}$		12 $\mu\text{A}$	
LED31	3.0 to 3.2 $\mu\text{m}$	0.80 $\mu\text{m}$		40 $\mu\text{A}$	
LED33	3.2 to 3.4 $\mu\text{m}$	0.60 $\mu\text{m}$		50 $\mu\text{A}$	
LED36	3.5 to 3.7 $\mu\text{m}$	0.70 $\mu\text{m}$		40 $\mu\text{A}$	
LED38	3.7 to 3.9 $\mu\text{m}$	0.70 $\mu\text{m}$		40 $\mu\text{A}$	
LED43	4.1 to 4.3 $\mu\text{m}$	1.00 $\mu\text{m}$		12 $\mu\text{A}$	
LED46	4.4 to 4.6 $\mu\text{m}$	1.10 $\mu\text{m}$		8 $\mu\text{A}$	