HAMAMATSU

HAMAMATSU PHOTONICS K.K.
SOLID STATE DIVISION
1126-1 ICHINO-CHO, HAMAMATSU CITY 435, JAPAN
TELEPHONE : 053-434-3311
FAX : 053-434-5184

Aug. 1998

Preliminary Datasheet

Hamamatsu IR-LED Array

Type no. L7559

L7559 consists of 6 LED chip specially designed for Spatial Data Communication Link application.

Absolute Maximum Ratings in DC Operation (Ta=25℃);

Parameter	Symbol	Rating	Unit
Forward Current (*1)	I_F	120	mA
Reverse Voltage	V_R	5	V
Pulse Forward Current	I_{FM}	1.2	A
Power Dissipation	P_D	500	mW
Operating Temp.	Topr	-30 ~ +85	℃
Storage Temp.	Tstg	-40 ~ +110	℃

Electrical and Optical Characteristics(Ta=25℃);

Parameter	Symbol	Condition	Typical	Unit
Radiant Flux	ϕe	I_F=100mA	60	mW
Pulsed Radiant Power	Ie	I_F=100mA	1,300	mW/sr
Forward Voltage	V_F	I_F=100mA (*3)	4.5	V
Reverse Current	I_R	V_R=5V	20 (Max.)	μA
Cutoff Frequency	fc	I_F=100mA ±1mA p-p	50	MHz
Peak Wavelength	λp	I_F=100mA	850	nm
Spectral Halfwidth	$\Delta\lambda$	I_F=100mA	50	nm

External Connection Diagram

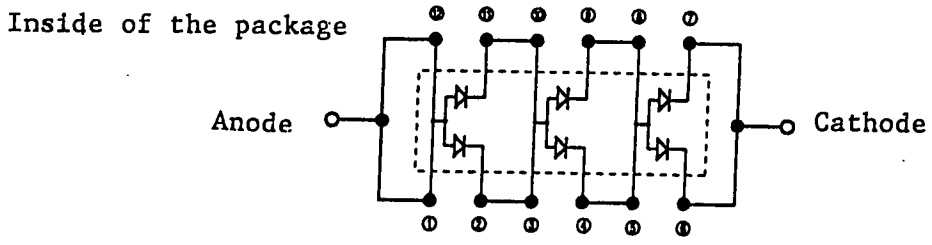

Fig.1 Emission Spectrum

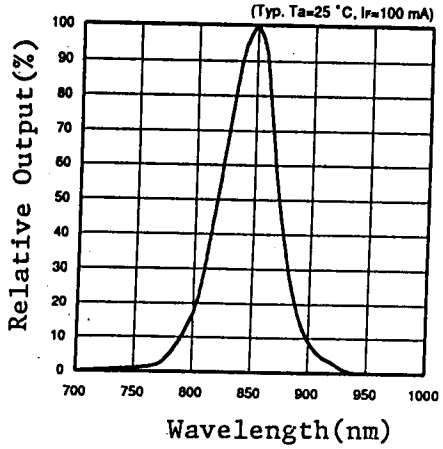

Fig.2 Directivity

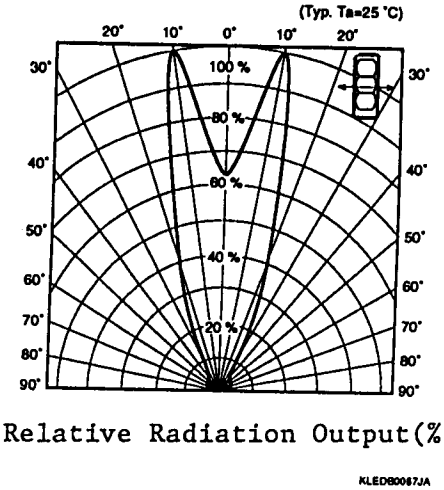

Fig.3 Directivity

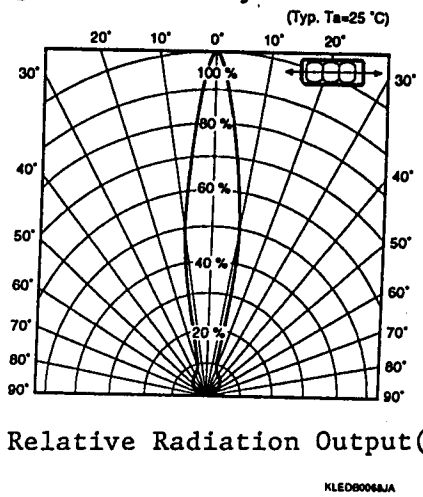

Fig.4 Frequency Response

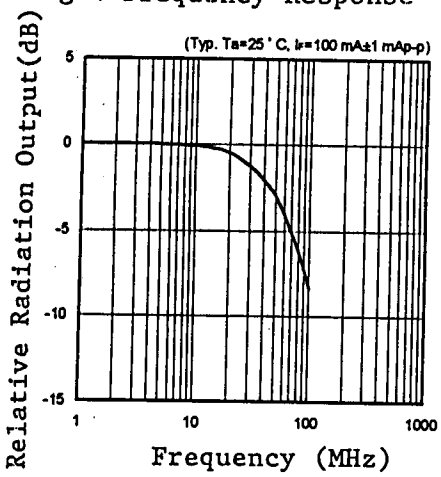

Fig.5 Radiation Power vs. Forward Current

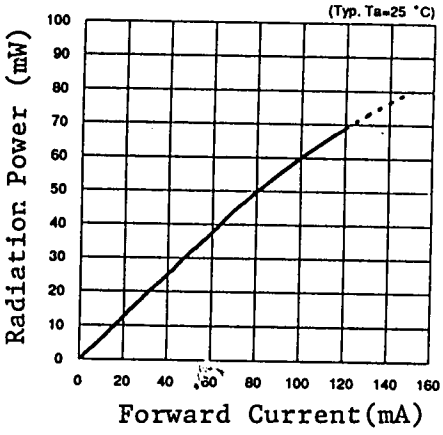

Fig.6 Forward Current vs. Forward Voltage

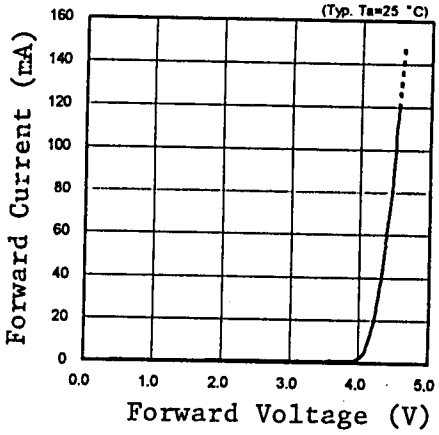

Fig.7 Light Output vs. Ambient Temp.

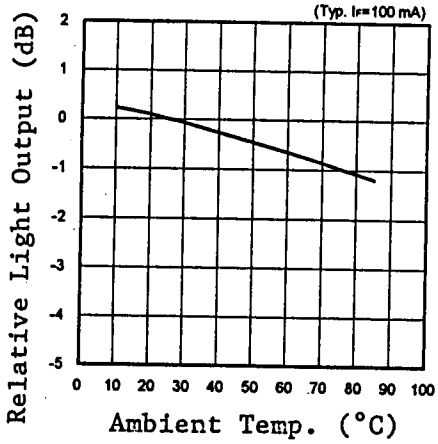

Fig.8 Dimensional Outline (Unit: mm)

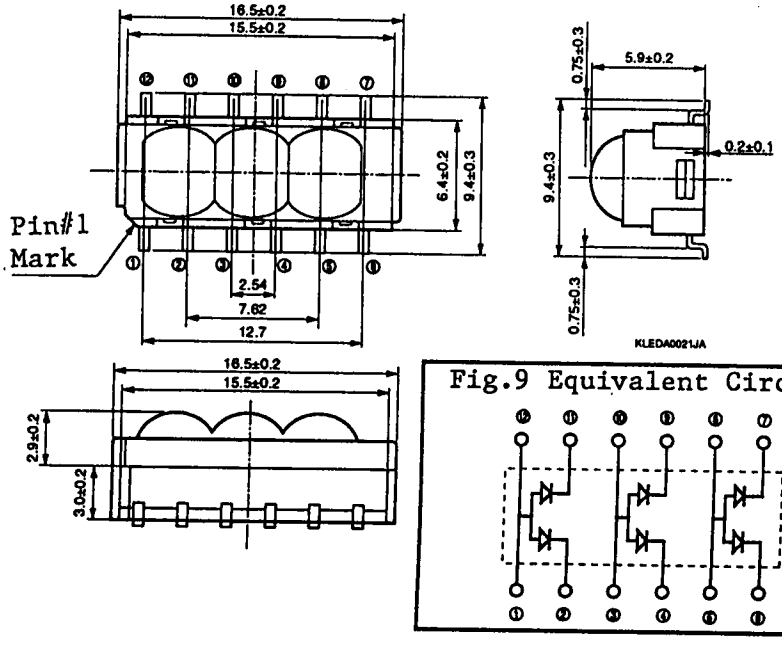

Fig.9 Equivalent Circuit