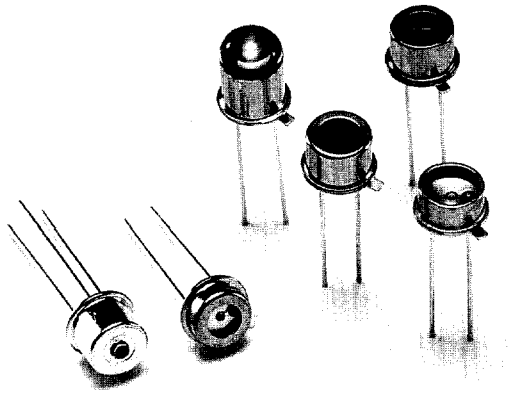


Metal Package LEDs

Metal package LEDs assure high reliability



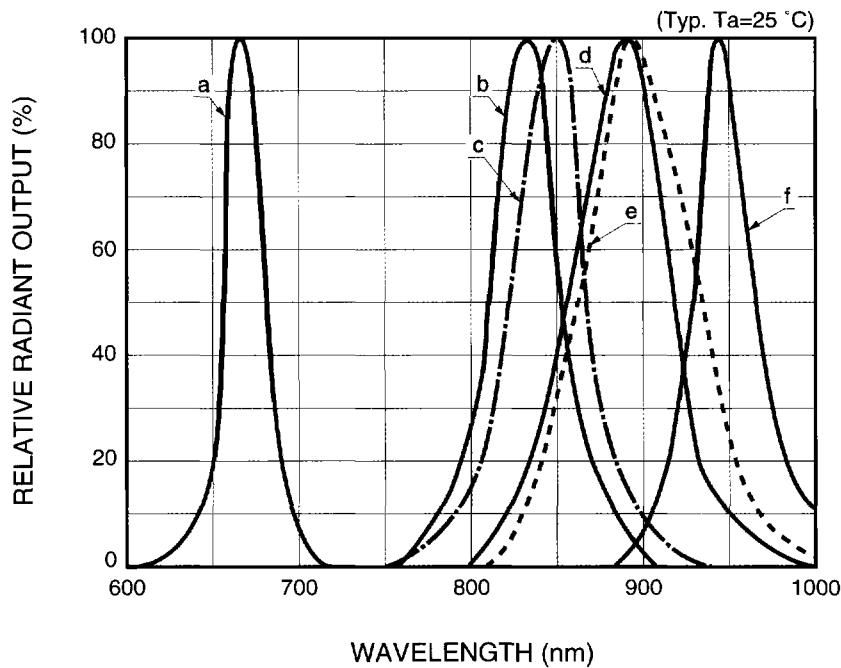
These infrared emitting diodes are hermetically sealed in a metal package that offer high reliability. The L2791 and L7560 series use a GaAlAs element with a microball lens directly cemented to the chip surface. The microball lens gives high directivity and good emission uniformity. In addition, a variety of package styles and windows are available in order to meet various needs. These include lens glass window types and flat glass window types.

- High reliability
- High radiant output power
- Narrow directivity
- High-speed response:
 - 100 MHz Typ. (L7560)
 - 50 MHz Typ. (L7558-01)

● APPLICATIONS

- Autofocus
- Optical switches
- Optical remote control
- Optical data link
- Optical wave rangefinder

■ Emission Spectrum



- a: L6112-01/-02
- b: L3989-01/-02
- c: L7558-01, L7560
- d: L2791/-02
- e: L1915-01/-02, L2683-01 *1, L2683-02 *1, L2690-02 *2
- f: L2388-01

*1: FWHM=60 nm

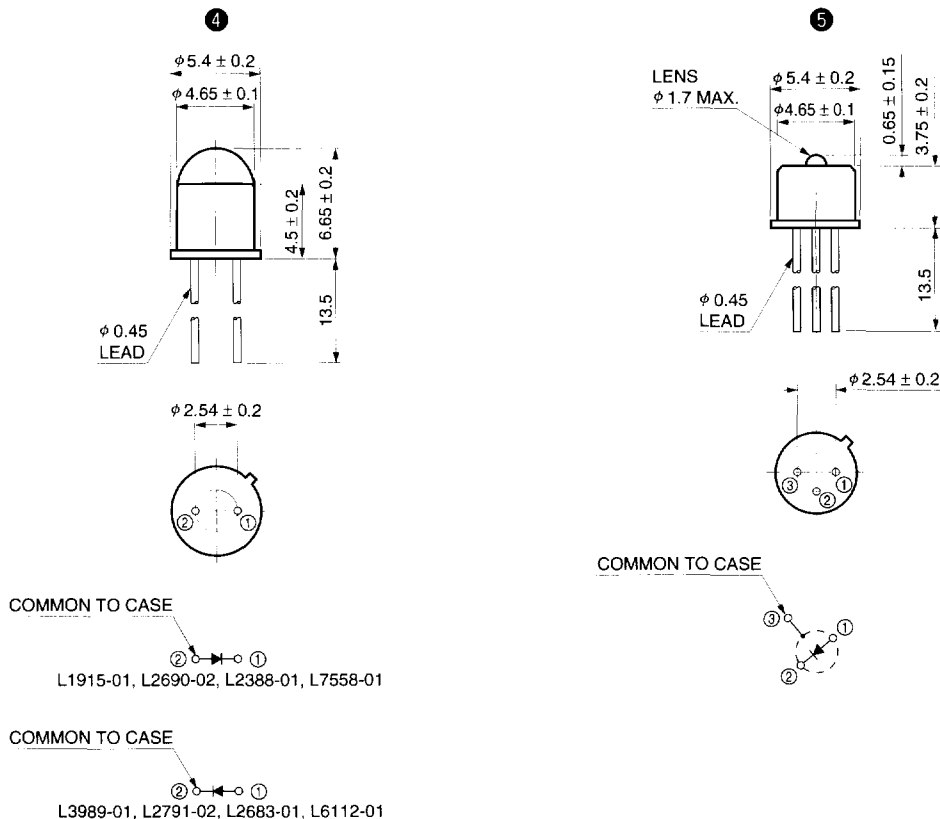
*2: FWHM=50 nm

(Unless otherwise noted, Typ. Ta=25 °C)

Electrical and Optical Characteristics									
Peak Wavelength λ_p I _F =50 mA (nm)	Spectral Halfwidth $\Delta\lambda$ I _F =50 mA (nm)	Forward Voltage		Reverse Current I _R V _R =5 V Max. (μ A)	Radiant Flux ϕ_e I _F =50 mA		Radiant Flux Density P _E I _F =50 mA (mW/cm ²)	Cut-off Frequency f _c I _F =50 mA DC+1 mA _{pp} (MHz)	Type No.
		V _F I _F =50 mA (V)	V _{FP} I _F =I _{FP} (V)		Min. (mW)	Typ. (mW)			
670 *2	25 *2	1.8 *2	4.9	20	1.8 *2	2.5 *2	4.0	5	L6112-01
							1.5		L6112-02
830	40	1.45	2.3	20 *3	2.5	3.6	2.2	30	L3989-01
							0.9		L3989-02
850	50	1.45	3.4	20	5.5	7.0	4.0	50	L7558-01
		1.8	2.7	20 *3	0.45	0.65	0.65	100	L7560
880	60	1.5	3.2	10 *3	1.6	2.0	1.3	3	L2791
							2.0		L2791-02
890	80	1.4	3.1	5	3.6	4.5	2.7	1	L1915-01
							1.0		L1915-02
	60	1.4	2.0	20 *3	1.5	2.2	1.7	30	L2683-01
									0.4
50	1.45	3.3	5	7.0	9.0	4.4	1	L2690-02	
940	40	1.3	2.6	5	2.6	3.4	1.4	0.3	L2388-01

*2: I_F=20 mA

*3: V_R=3 V

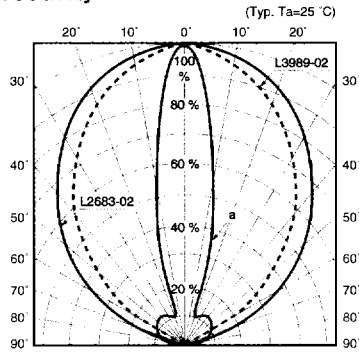


KLEDA0013EB

KLEDA0029EA

Metal Package LEDs

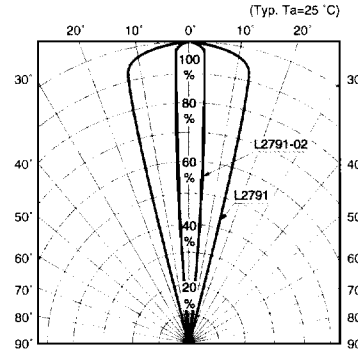
Directivity



RELATIVE RADIANT OUTPUT (%)

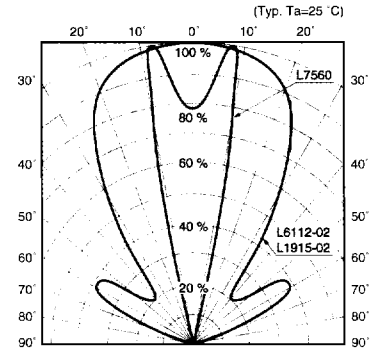
a: L1915-01, L2388-01, L2683-01, L2690-02, L3989-01, L6112-01, L7588-01

KLEDB0023EA



RELATIVE RADIANT OUTPUT (%)

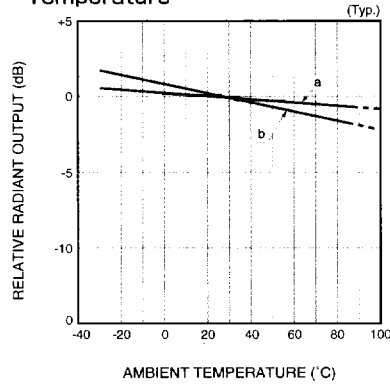
KLEDB0024EB



RELATIVE RADIANT OUTPUT (%)

KLEDB0025EB

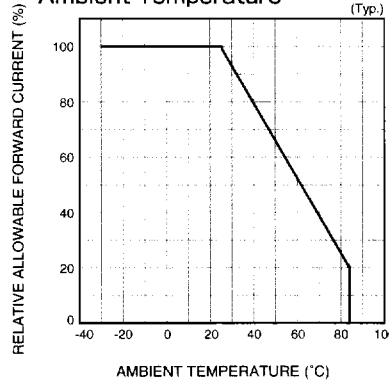
Radiant Output vs. Ambient Temperature



a: L2791-02, L7560
b: Types other than the a

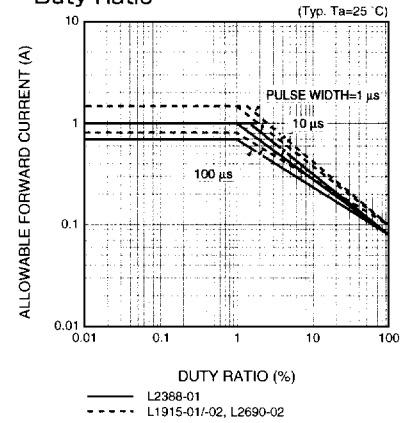
KLEDB0026EB

Allowable Forward Current vs. Ambient Temperature



KLEDB0027EA

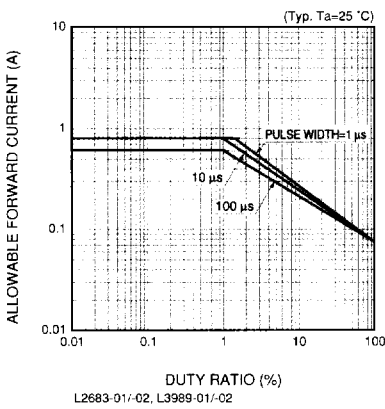
Allowable Forward Current vs. Duty Ratio



— L2388-01
- - - L1915-01/-02, L2690-02

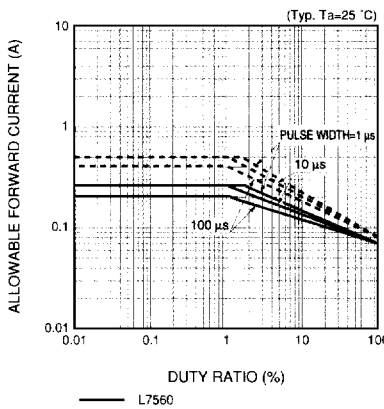
KLEDB0028EB

Allowable Forward Current vs. Duty Ratio



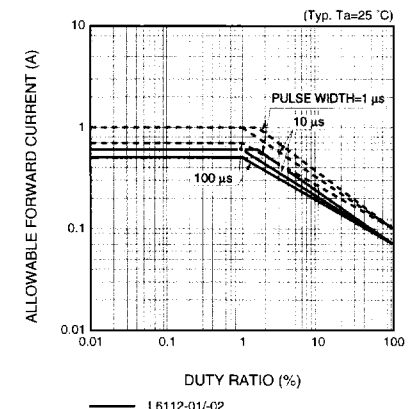
L2683-01/-02, L3989-01/-02

KLEDB0029EA



— L7560
- - - L2791-02

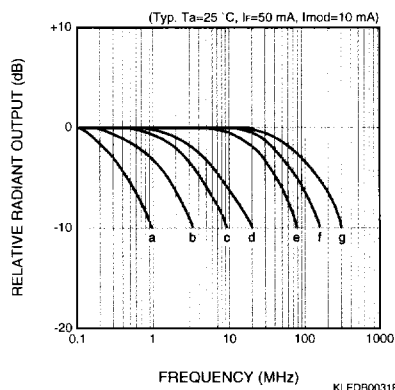
KLEDB0030EC



— L6112-01/-02
- - - L7558-01

KLEDB0031EA

Frequency Response



a: L2388-01
b: L1915-01/-02, L2690-02
c: L2791-02
d: L6112-01/-02
e: L3989-01/-02, L2683-01/-02
f: L7558-01
g: L7560

KLEDB0031EB