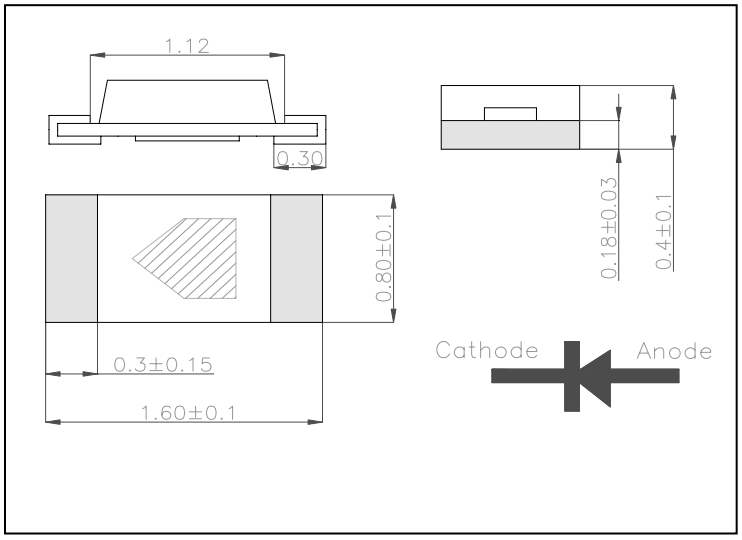
Infrared Emitting Diode(GaAlAs)

KLB-16AI-94

The KLB-16I-94 is GaAlAs infrared emitting diode and has the optimized optical characteristics.

DIMENSIONS



Features

- Ultra Wide Viewing Angle
- 940nm wavelength
- Low forward voltage

Applications

- Display
- Indicator
- Car CCD Camera

Maximum Ratings [Ta=25°C]

Parameter	Symbol	Ratings	Unit
Reverse Voltage	V_R	5	V
Forward current	I_F	50	mA
Pulse forward current *1	I_{FP}	0.7	A
Power dissipation	P_D	75	mW
Operating temperature	$T_{opr.}$	-20 ~ +85	°C
Storage temperature	$T_{stg.}$	-30 ~ +100	°C
Soldering Temperature *2	$T_{sol.}$	260	°C

*1. I_{FP} Measured under duty £ 1/10 @ 1KHz

*2. Soldering time £ 5 Sec

Electro-Optical Characteristics [Ta=25°C]

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	I_F = 20 mA	-	1.20	1.5	V
Reverse current	IR	V_R=5V	-	-	10	μA
Radiant intensity	Ie	I_F = 20 mA	1.0	1.5	-	mW/sr
Radiant Power	Po	I_F = 20 mA		1.3	-	mW
Peak emission wavelength	λp	I_F = 20 mA	-	940	-	nm
Spectral bandwidth	Δλ	I_F = 20 mA		45		nm
Half angle	ΔΘ	I_F = 20 mA	-	160	-	deg.

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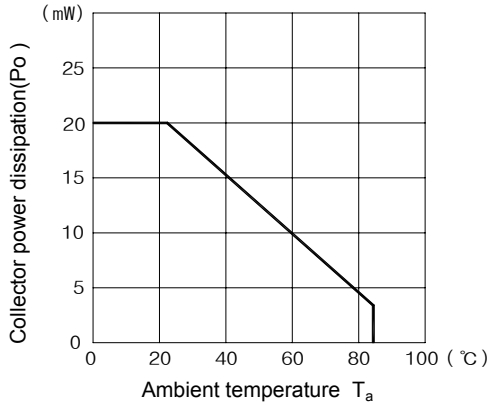
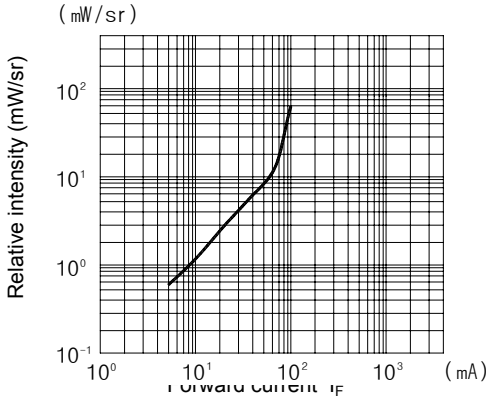
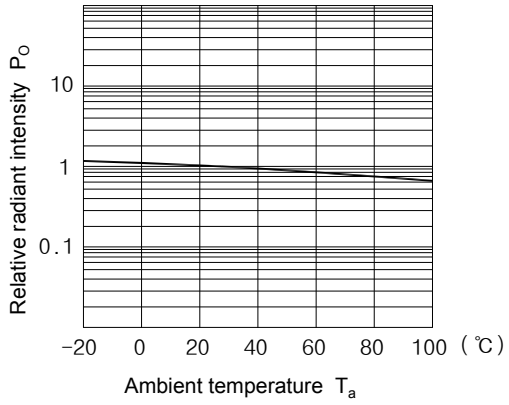
Collector power dissipation Vs Ambient temperature



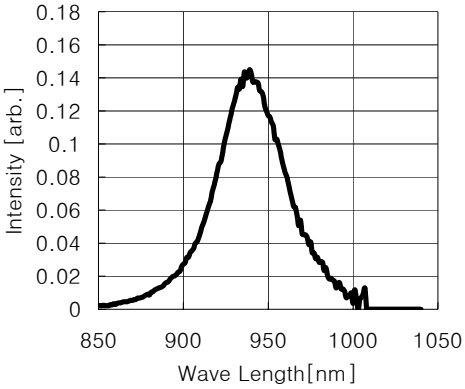
Radiant Intensity vs. Forward current



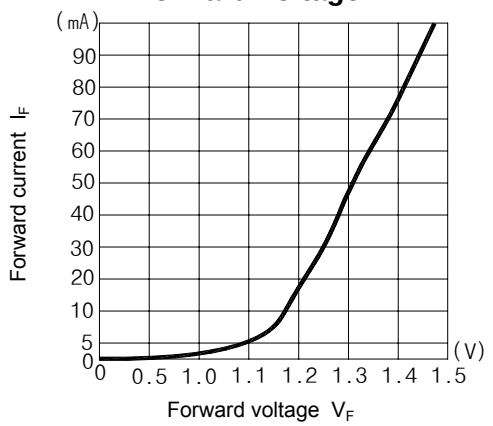
Relative radiant intensity vs. Ambient temperature



Relative intensity vs. Wavelength



Forward current vs. Forward voltage



Radiant Pattern