



SPECIFICATION FOR AXIAL LAMP

PART NO. : LT0283-A7-880

1.8MM AXIAL INFRARED LAMP

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1.8MM AXIAL INFRARED LAMP

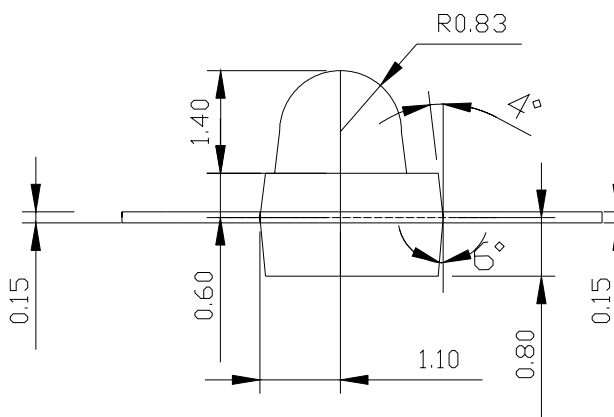
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Features

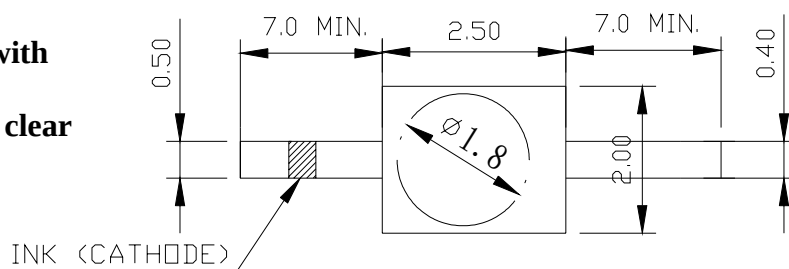
- * High radiant power
- * Reliable and rugged
- * Lower degradation
- * IC Compatible

Package Dimensions



Description

The Infrared lamps are made with AlGaAs/GaAs chips and water clear epoxy resin.



Notes:

- 1.All dimensions are in millimeters.
- 2.Tolerance is $\pm 0.25\text{mm}$ unless otherwise noted.

Part No.	Led Chip		Lens Color
	Material	Emitting Color	
LT0283-A7-880	AlGaAs/GaAs	Infrared	Water Clear



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Absolute Maximum Ratings at Ta=25°C :

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	150	mW
Reverse Voltage	Vr	5	V
D.C. Forward Current	If	30	mA
Peak Current (1/10 Duty Cycle , 0.1 ms Pulse Width)	If(Peak)	1	A
Operating Temperature Range	Topr	-25 to +85	°C
Storage Temperature Range	Tstg	-40 to +100	°C
Lead Soldering Temp.(1.6mm from body) for 5 seconds		260	°C

Electrical and Optical Characteristics :

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Rad iant Intensity	Ee	If=100mA	4.0	7.0		mw
Forward Voltage	Vf	If=20mA		1.2	1.5	V
		If=100mA		1.3	1.7	V
Peak Wavelength	λP	If=20mA		880		nm
Dominant Wavelength	λD	-----				nm
Reverse Current	Ir	Vr=5V			100	μA
Viewing Angle	$2\theta 1/2$	If=20mA		36		deg
Spectrum Line Halfwidth	$\Delta \lambda$	If=20mA		50		nm

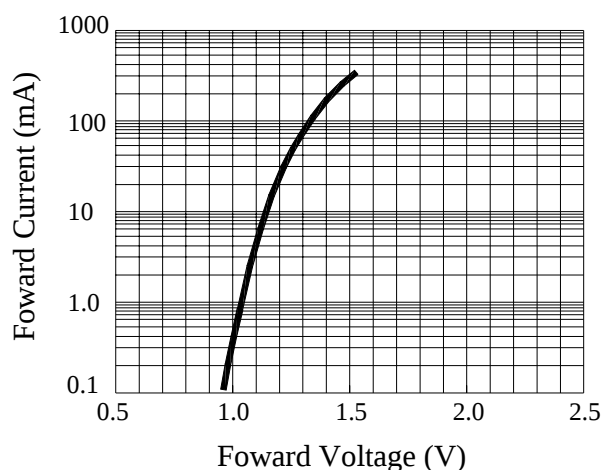


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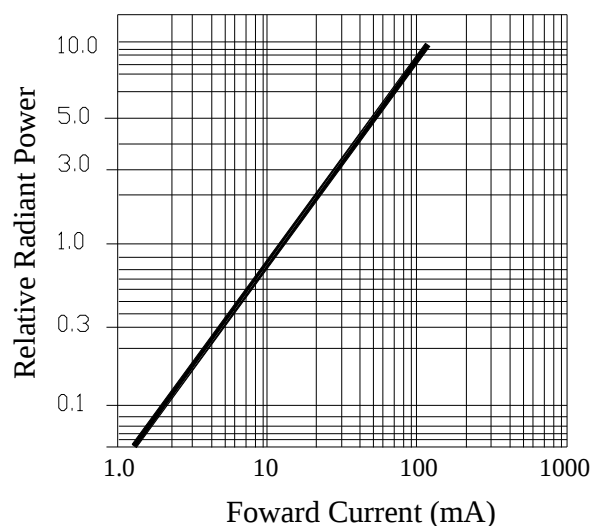
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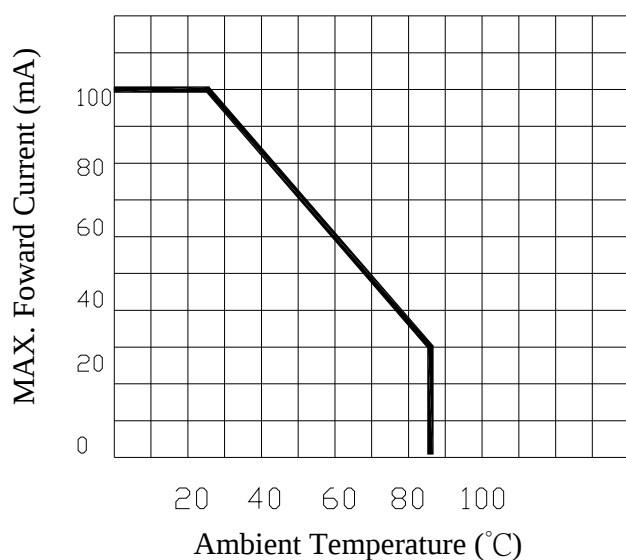
Typical Electrical / Optical Characteristics Curves :



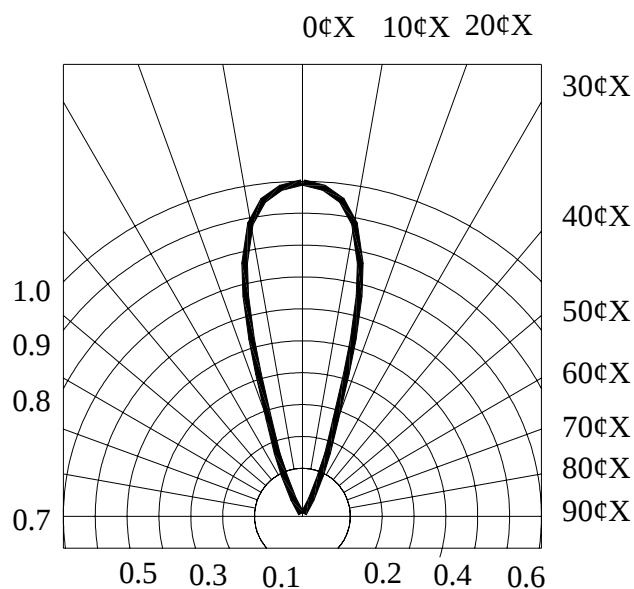
FORWARD CURRENT VS. APPLIED VOLTAGE



FORWARD CURRENT VS. LUMINOUS INTENSITY



AMBIENT TEMPERATURE VS. FORWARD CURRENT



RADIATION DIAGRAM



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Reliability Test Method :

Test Item	Test Condition	Duration Time
Operation Life	If=20mA / Ta=25℃	168hrs
Storage at High Temperature	Ta=100℃	168hrs
Storage at Low Temperature	Ta=-40℃	168hrs
Storage at High Temperature/High Humidity	Ta=85℃ /RH=85 %	168hrs
Operating at High Temperature	Ta=85℃ / If=20mA	168hrs
Operating at Low Temperature	Ta=25℃ / If=20mA	168hrs
Thermal Shock	Ta/T=100℃/30min~ -40℃/30min	10 cycles
Solderability	Tsol=230℃	5 sec

Criteria for Judging The Damage:

Item	Symbol	Test Condition	Criteria for Judgment	
			Min.	Max.
Forward Voltage	Vf	If=20mA	-----	Initial Data $\times 1.1$
Reverse Current	Ir	Vr=5V	-----	100 μ A
Luminous Intensity	Iv	If=20mA	Initial Data $\times 0.8$	-----