

**Metal-Glass can sealed type**  
**Model No. AE679B**

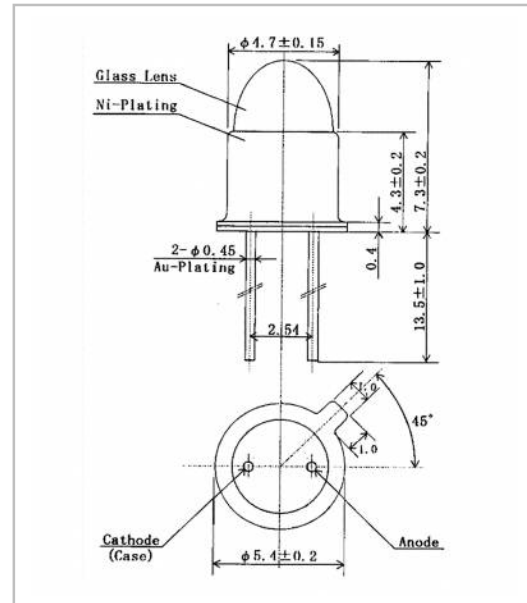
Visible Point source LED

◆ **Features**

Red Color Point-Source LED  
Emitting Window: dia  $\phi$  150  $\mu$  m  
Parallel Rays (Super Excellent)  
Narrow Beam (Super Excellent)  
Small Temp. Coefficient of PO

◆ **Applications**

Optical switches  
Linear & Rotary Encoder



Dimensions (unit: mm)

◆ **Absolute Maximum Ratings**

Ta = 25°C

Parameter	Symbol	Value	Unit
Forward Current (DC)	I <sub>F</sub>	50	mA
Pulse Forward Current *1	I <sub>FP</sub>	0.3	A
Reverse Voltage (DC)	V <sub>R</sub>	5	V
Power Dissipation	P <sub>D</sub>	125	mW
Operating Temperature	T <sub>opr</sub>	-20 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-30 ~ +100	°C
Junction Temperature	T <sub>j</sub>	100	°C
Lead Soldering Temperature *2	T <sub>sol</sub>	260	°C

\*1 : Tw=10  $\mu$  s, T=10mS \*2 : Time 5sec max./ Position up to 3.0mm from the body

◆ **Electro-optical Characteristics**

Ta = 25°C

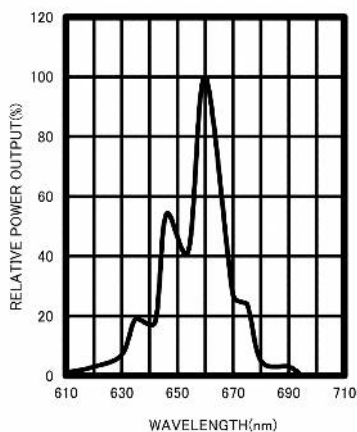
Parameter	Symbol	MIN	TYP	MAX	Unit	Conditions
Power Output	P <sub>O</sub>	0.2	0.4	--	mW	I <sub>F</sub> = 20mA
Forward Voltage	V <sub>F</sub>	--	2.2	2.5	V	I <sub>F</sub> = 20mA
Reverse Current	I <sub>R</sub>	--	--	10	$\mu$ A	V <sub>R</sub> = 5V
Peak Wavelength	$\lambda_p$	630	650	670	nm	I <sub>F</sub> = 20mA
Spectral Line Half width	$\Delta \lambda$		20		nm	I <sub>F</sub> = 20mA
Half Intensity Beam Angle	$\theta$		$\pm$ 2.5		deg.	I <sub>F</sub> = 20mA
Temp. Coefficient of P <sub>O</sub>	P/T		-0.24		%/°C	I <sub>F</sub> = 10mA
Temp. Coefficient of V <sub>F</sub>	V/T		-3.8		mV/°C	I <sub>F</sub> = 10mA

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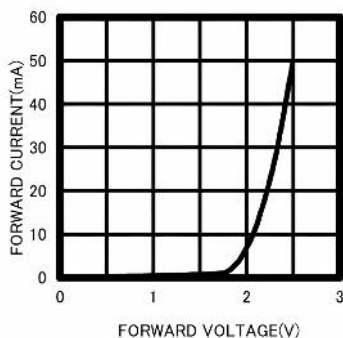
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◆ **Characteristics Data**

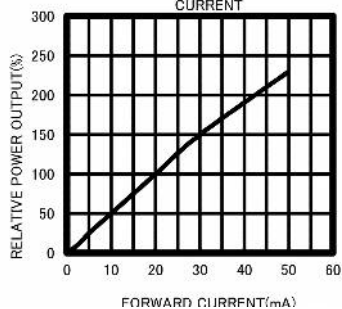
SPECTRAL OUTPUT



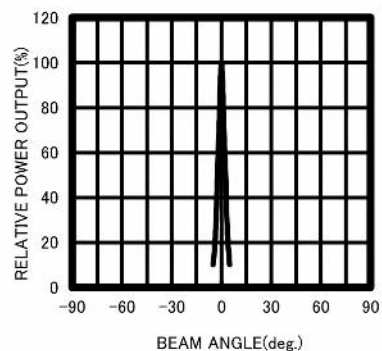
FORWARD I-V CHARACTERISTICS



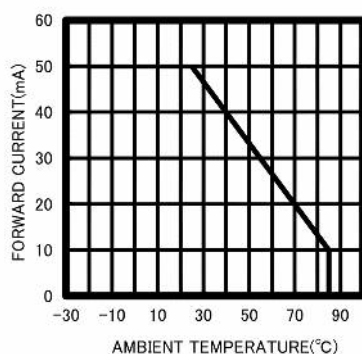
RELATIVE POWER vs FORWARD CURRENT



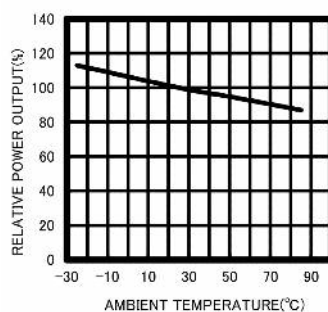
RADIATION PATTERN



THERMAL DERATING CURVE



POWER OUTPUT vs TEMPERATURE  
IF=10mA



FORWARD VOLTAGE vs TEMPERATURE  
IF=10mA

