

Mold type
Model No. AL810M5-812

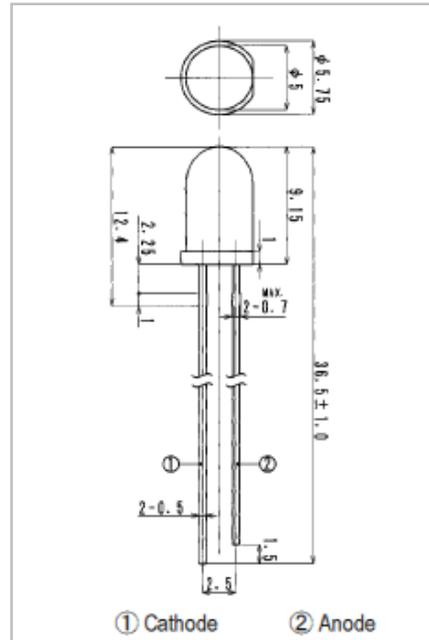
Infrared LED

◆ **Features**

- High-output power
- Narrow Beam Angle
- High Reliability

◆ **Applications**

- Optical Switches
- Optical Sensors
- Medical Application



◆ **Absolute Maximum Ratings**

Ta = 25°C

Parameter	Symbol	Value	Unit
Forward Current (DC)	I _F	100	mA
Pulse Forward Current *1	I _{FP}	1.0	A
Reverse Voltage (DC)	V _R	5	V
Power Dissipation	P _D	180	mW
Operating Temperature	T _{opr}	-20 ~ +80	°C
Storage Temperature	T _{stg}	-30 ~ +100	°C
Junction Temperature	T _j	100	°C
Lead Soldering Temperature *2	T _{sol}	260	°C

*1 : Tw=10 μs, T=10ms

*2 : within 5sec / up to 3.0mm from the body

◆ **Electro-optical Characteristics**

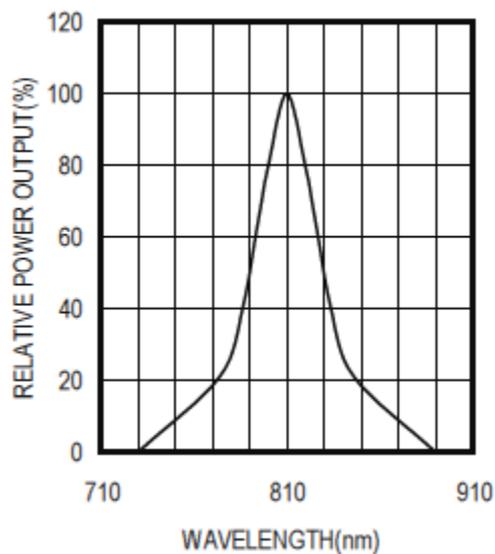
Ta = 25°C

Parameter	Symbol		Value	Unit	
Output Power	P _O	Typ	20.0	mW	I _F = 50mA
Forward Voltage	V _F	Typ	1.55	V	I _F = 50mA
		Max	1.90		
Reverse Current	I _R	Max	100	μA	V _R = 5V
Peak Wavelength	λ _p	Typ	810	nm	I _F = 50mA
Spectral Line Half Width	Δλ	Typ	40	nm	I _F = 50mA
Half Intensity Beam Angle	θ 1/2	Typ	±7.0	deg.	I _F = 50mA

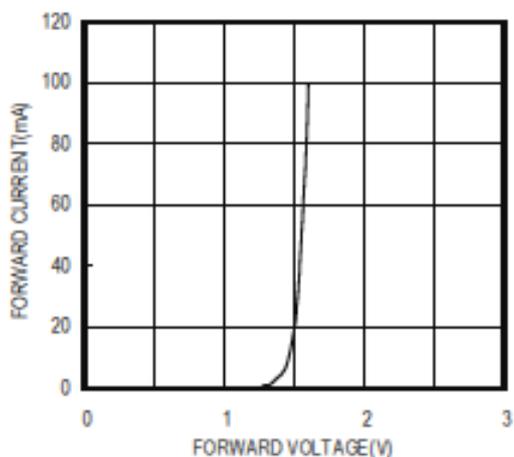
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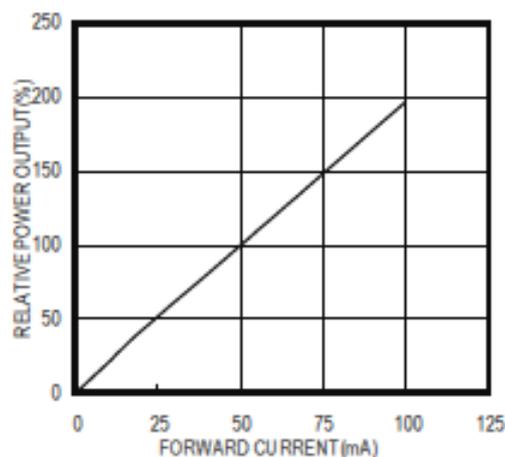
SPECTRAL OUTPUT



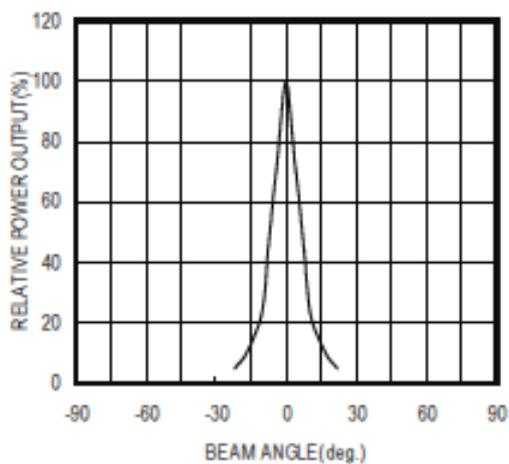
FORWARD I-V CHARACTERISTICS



RELATIVE POWER vs FORWARD CURRENT



RADIATION PATTERN



THERMAL DERATING CURVE

