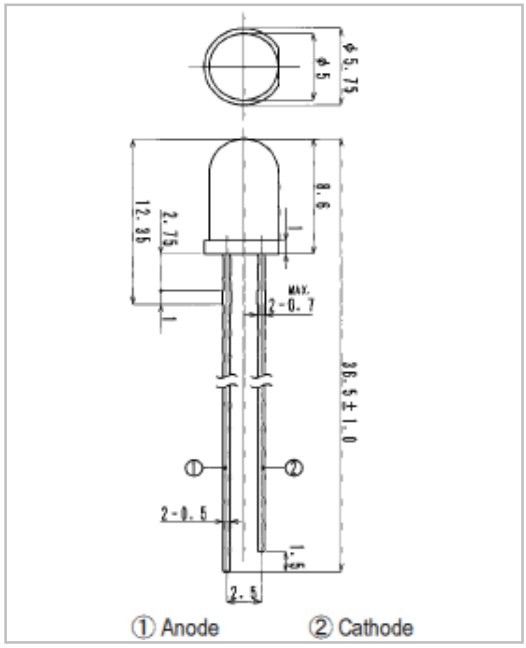
RoHS Compliant

Mold type

Model No. AL810M1-812

Infrared LED



◆ Features

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

◆ Applications

- Optical Switches
- Optical Sensors
- Medical Application

◆ Absolute Maximum Ratings

Ta = 25℃

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	Topr	-20 ~ +80	℃
Storage Temperature	Tstg	-30 ~ +100	℃
Junction Temperature	Tj	100	℃
Lead Soldering Temperature *2	Tsol	260	℃

*1 : Tw=10 μ s, T=10mS

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

◆ Electro-optical Characteristics

Ta = 25℃

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	μ A	V_R = 5V
Peak Wavelength	λ_p	Typ	810	nm	I_F = 50mA
Spectral Line Half Width	$\Delta\lambda$	Typ	40	nm	I_F = 50mA
Half Intensity Beam Angle	θ 1/2	Typ	±10.0	deg.	I_F = 50mA

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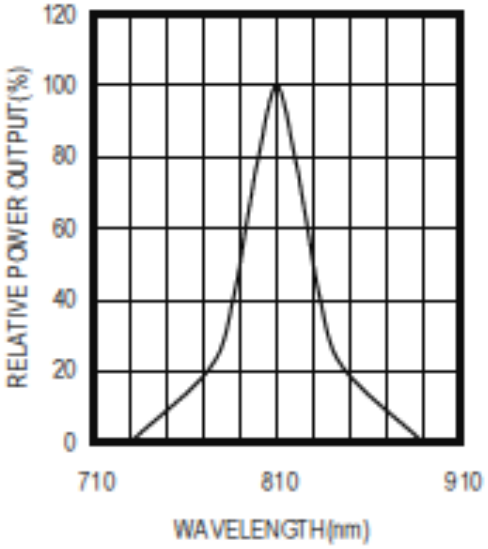
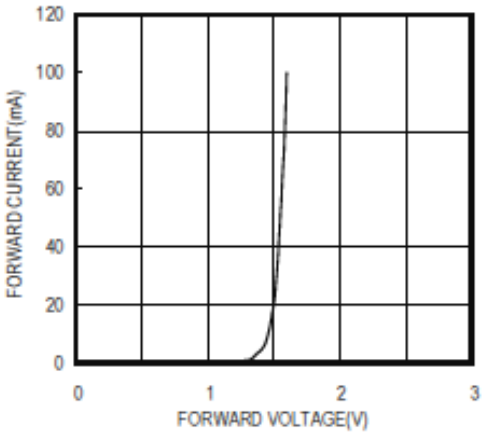
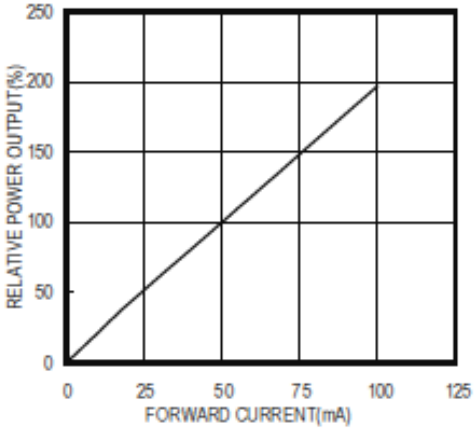
SPECTRAL OUTPUT



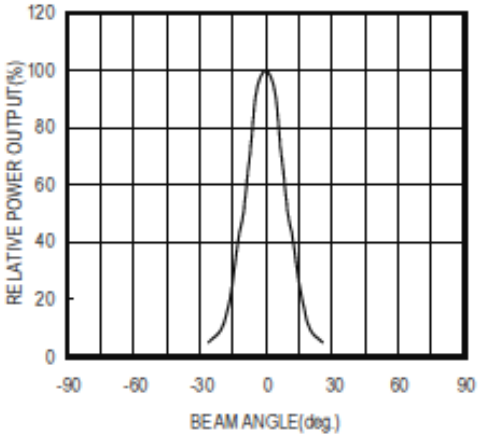
FORWARD I-V CHARACTERISTICS



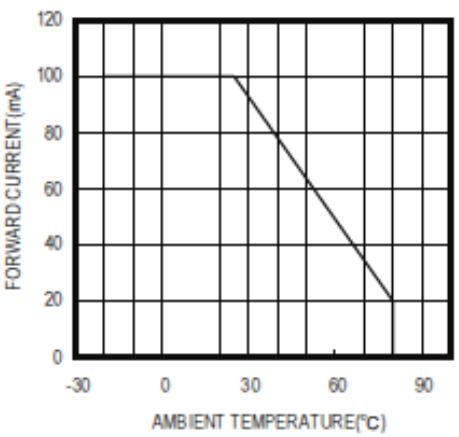
RELATIVE POWER vs FORWARD CURRENT



RADIATION PATTERN



THERMAL DERATING CURVE



The data is subject to change without notice.