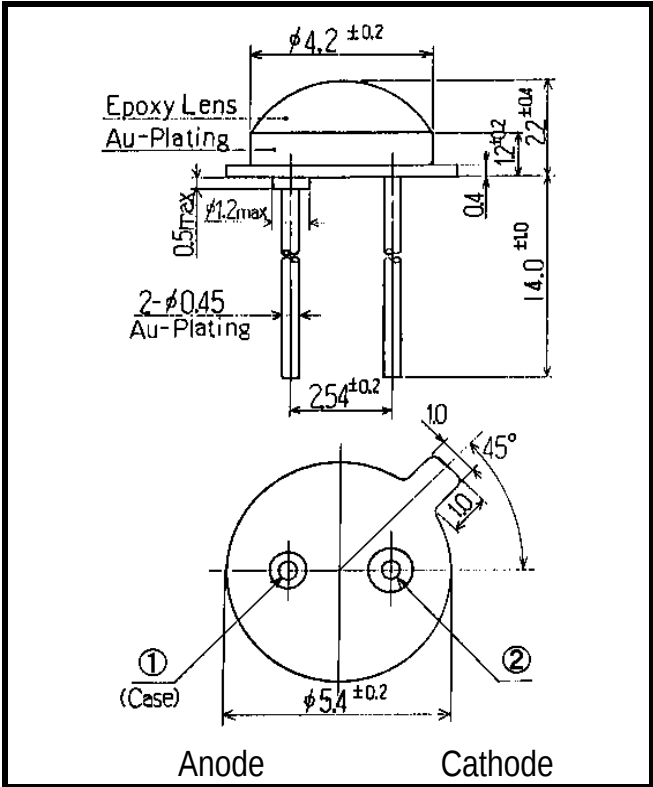


IR-880-TO-180M2

Infrared Emitting Diode



- FEATURES
- High-output Power
 - Wide Beam Angle
 - High Reliability
- APPLICATIONS
- Optical Switches
 - Optical Sensors

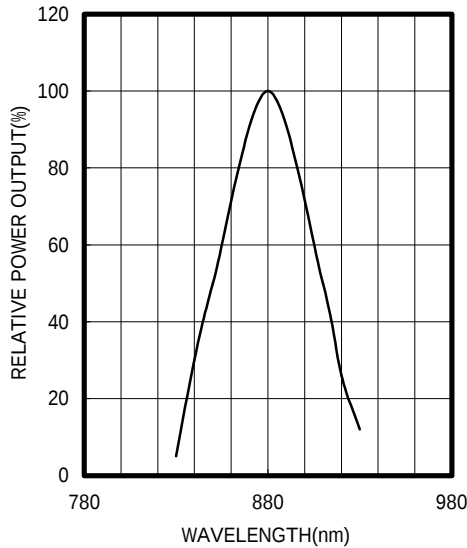
1. ABSOLUTE MAXIMUM RATINGS (Ta=25)

I T E M	SYMBOL	RATINGS	UNIT
Forward Current (DC)	IF	100	mA
Forward Current (Pulse)*1	IFP	1	A
Reverse Voltage	VR	5	V
Power Dissipation	PD	180	mW
Operating Temp.	Topr	-20 TO 80	
Storage Temp.	Tstg	-30 TO 100	
Junction Temp.	Tj	100	
Lead Soldering Temp.*2	Tls	260	

*1:Tw=10uS,T=10mS

*2:Time 5 Sec max,Position:Up to 3mm from the body

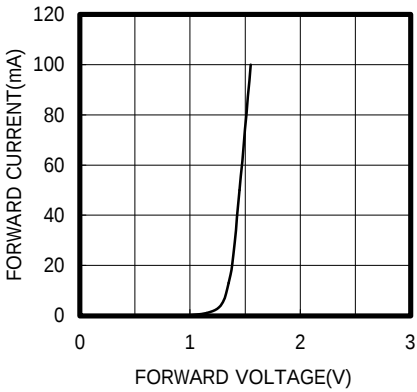
SPECTRAL OUTPUT



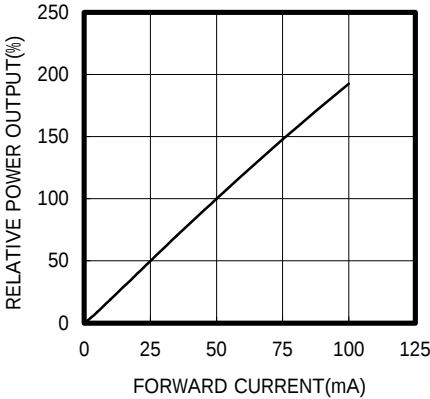
2.ELECTRICAL & OPTICAL CHARACTERISTICS (Ta=25)

I T E M	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	IF=50mA	7.0	13.0		mW
Forward Voltage	VF	IF=50mA		1.45	1.8	V
Reverse Current	IR	VR=5V			10	μ A
Peak Wavelength	λ p	IF=50mA		880		nm
Spectral Line Half Width	$\Delta \lambda$	IF=50mA		60		nm
Half Intensity Beam Angle	θ	IF=50mA		± 90		deg.
Rise Time	Tr	IFP=50mA		1.5		μ S
Fall Time	Tf	IFP=50mA		0.8		μ S
Junction Capacitance	Cj	1MHz ,V=0V		15		pF
Temp. Coefficient of PO	P/T	IF=10mA		-0.5		%/
Temp. Coefficient of VF	V/T	IF=10mA		-1.5		mV/

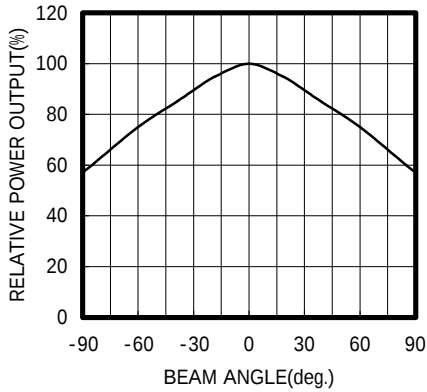
FORWARD I-V CHARACTERISTICS



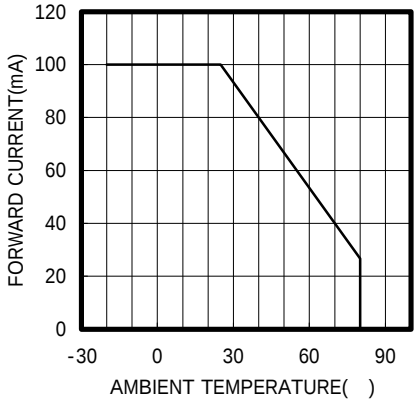
RELATIVE POWER vs FORWARD CURRENT



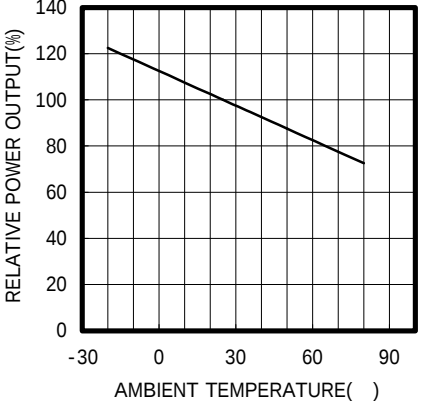
RADIATION PATTERN



THERMAL DERATING CURVE



POWER OUTPUT vs TEMPERATURE IF=10mA



FORWARD VOLTAGE vs TEMPERATURE IF=10mA

