

### Peak Emission Wavelength: 850nm

The 850nm infrared emitter series is designed for application requiring high accuracy and precision as well as uniform spectral emission. Custom package solutions and sorting are available.

#### FEATURES

- > 3.5x2.2x1.24 Flat Top Ceramic SMT
- > High Reliability
- > High Output Power
- > Wide Beam Angle

#### APPLICATIONS

- > Optical Scanning
- > Linear & Rotary Encoder
- > Edge Sensing / Optical Sensors
- > Optical Switches / Security Systems



### Absolute Maximum Ratings (Ta=25°C)



ITEMS	SYMBOL	RATINGS	UNIT
Forward Current (DC)	IF	80	mA
Forward Current (Pulse)*1	IFP	0.5	A
Reverse Voltage	VR	5	V
Power Dissipation	PD	160	mW
Operating Temperature Range	Topr	-20 ~ +80	°C
Storage Temperature Range	Tstg	-30 ~ +100	°C
Junction Temperature	Tj	100	°C
Lead Soldering Temperature*2	Tls	260	°C

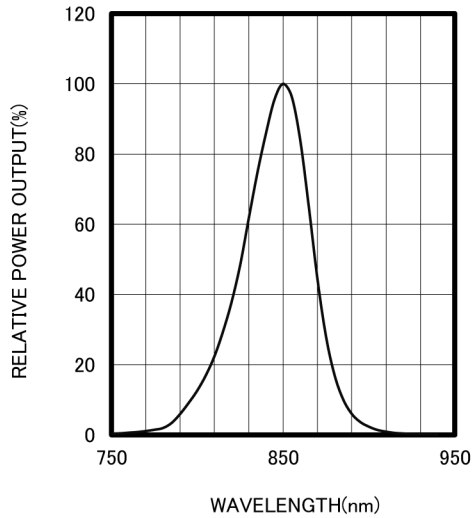
\*1: Tw=10μsec, T=10msec. \*2: Time 5 Sec max, Position: Up to 3mm from the body.

### Electrical & Optical Characteristics (Ta = 25°C)

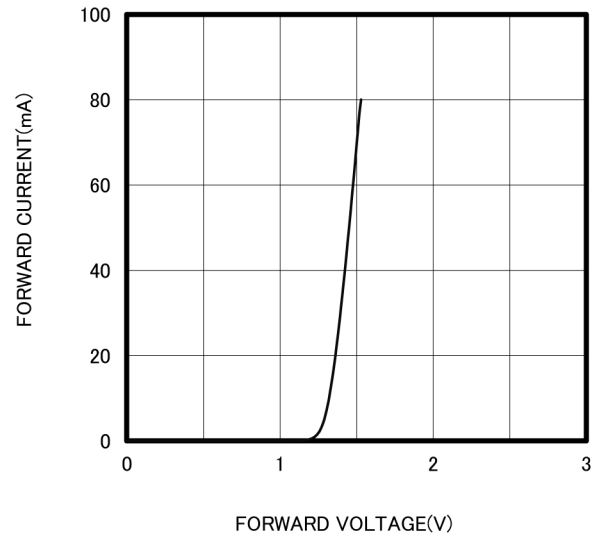
ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	IF=50mA	--	10.0	--	mW
Forward Voltage	VF	IF=50mA	--	1.45	1.80	V
Reverse Current	IR	VR=5V	--	--	100	μA
Peak Emission Wavelength	λp	IF=50mA	--	850	--	nm
Spectral Line Half Width	Δλ	IF=50mA	--	45	--	nm
Half Intensity Beam Angle	Θ	IF=50mA	--	±55	--	deg



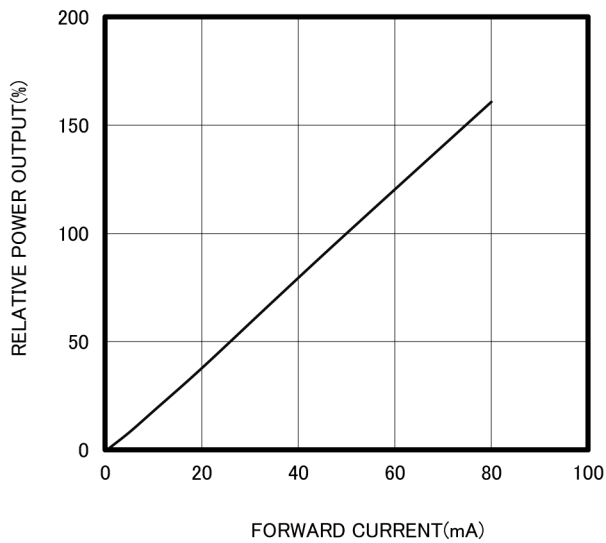
SPECTRAL OUTPUT



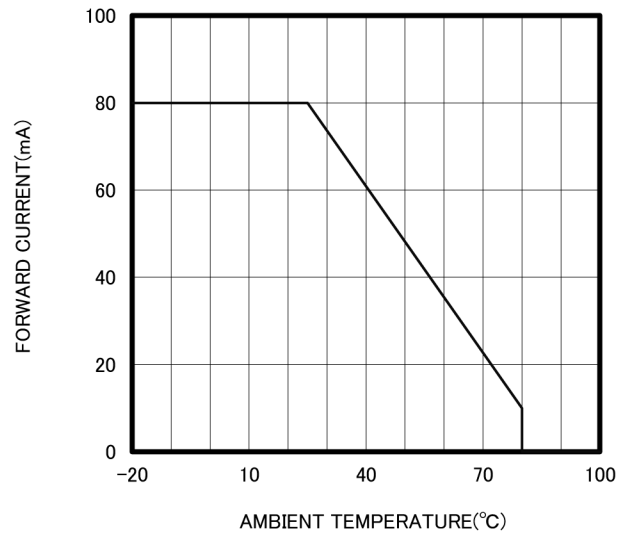
FORWARD I-V CHARACTERISTICS



RELATIVE POWER vs FORWARD CURRENT



THERMAL DERATING CURVE



RADIATION PATTERN

