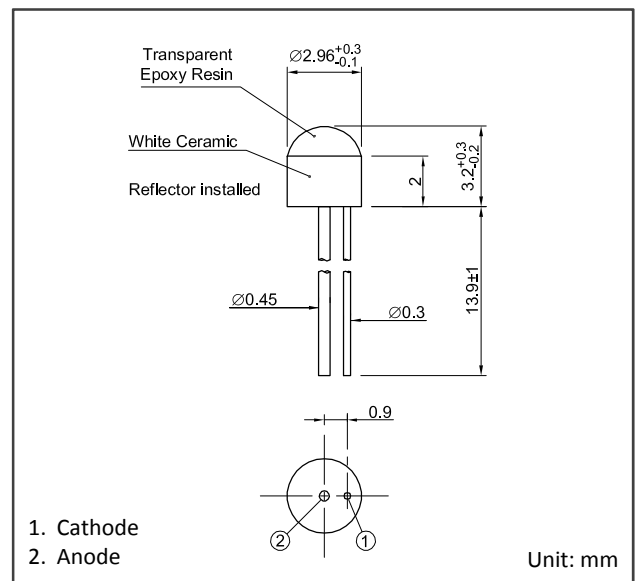


**Features**

- High efficiency and high power
- Small package
- Direct modulation
- High reliability and long life

**Applications**

- Optical switches
- Optical encoders
- Optical instruments
- Automatic control apparatus
- Smoke sensors
- Photo-isolators

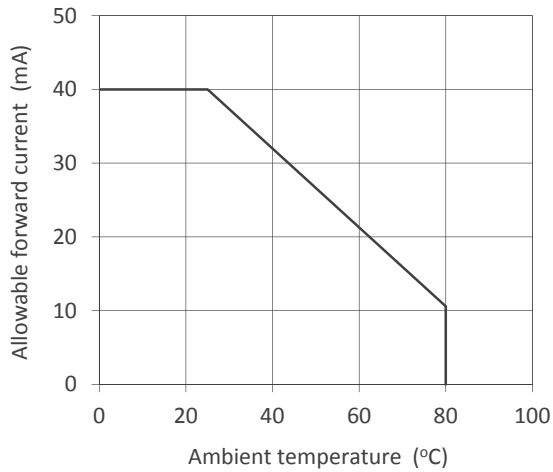
**Absolute Maximum Ratings**

Parameter	Symbol	Value	Unit	Note
Forward current	$I_F$	40	mA	$T_a=25^\circ\text{C}$
Peak forward current	$I_{FP}$	0.5	A	Pulse width=100 $\mu\text{s}$ Duty ratio=0.1%
Reverse voltage	$V_R$	6	V	
Power dissipation	$P_D$	70	mW	$T_a=25^\circ\text{C}$
Operating temperature	$T_{opr}$	-20 to +80	$^\circ\text{C}$	Avoid dew condensation
Storage temperature	$T_{stg}$	-30 to +100	$^\circ\text{C}$	Avoid dew condensation

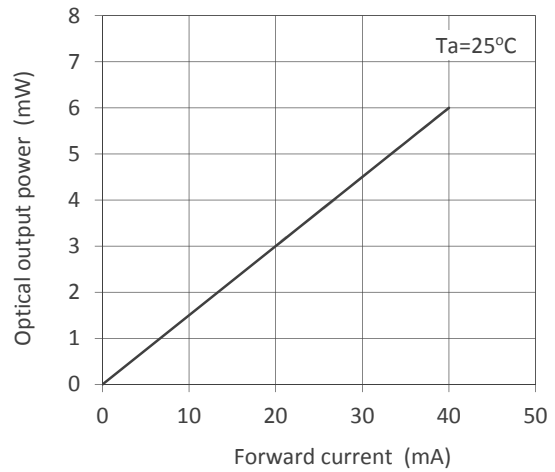
**Electrical and Optical Characteristics** ( $T_a=25^\circ\text{C}$  unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Forward voltage	$V_F$	-	1.3	1.5	V	$I_F=40\text{mA}$
Reverse current	$I_R$	-	-	10	$\mu\text{A}$	$V_R=6\text{V}$
Optical output power	$P_O$	-	6.0	-	mW	$I_F=40\text{mA}$
Peak emission wavelength	$\lambda_p$	-	890	-	nm	$I_F=40\text{mA}$
Spectral bandwidth at 50%	$\Delta\lambda$	-	50	-	nm	$I_F=40\text{mA}$

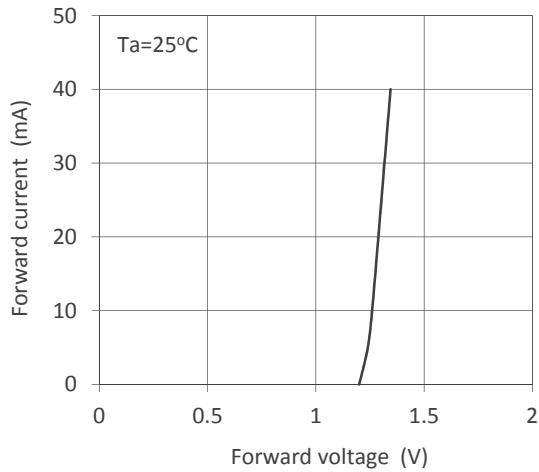
Allowable Forward Current-Ambient Temperature



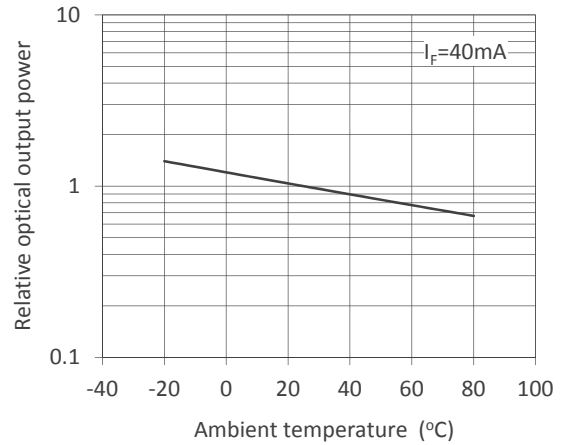
Optical Output Power - Forward Current



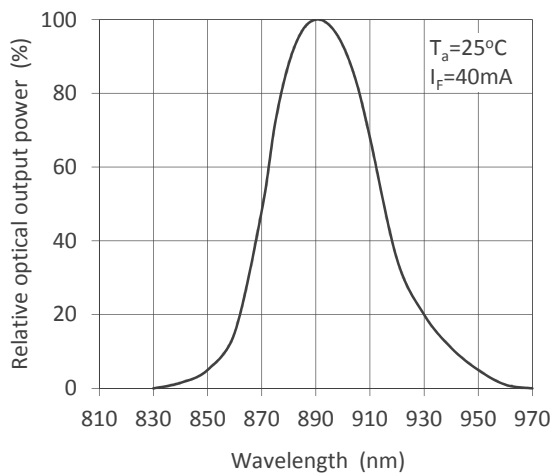
Forward Current - Forward Voltage



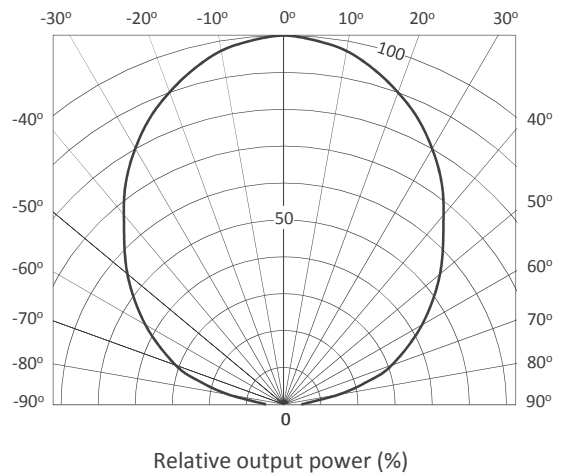
Relative Optical Output Power - Ambient Temperature



Spectral Distribution



Directivity



- Specifications, characteristics, data, materials, structures specified in this datasheet are subject to change without notice. Please refer to the latest specification before use of the products.
- Products listed in this datasheet comply with the RoHS Directive (EU2002/95/EC).

**Opto-technologies for the Future**



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