

## MTE9094N

### Features

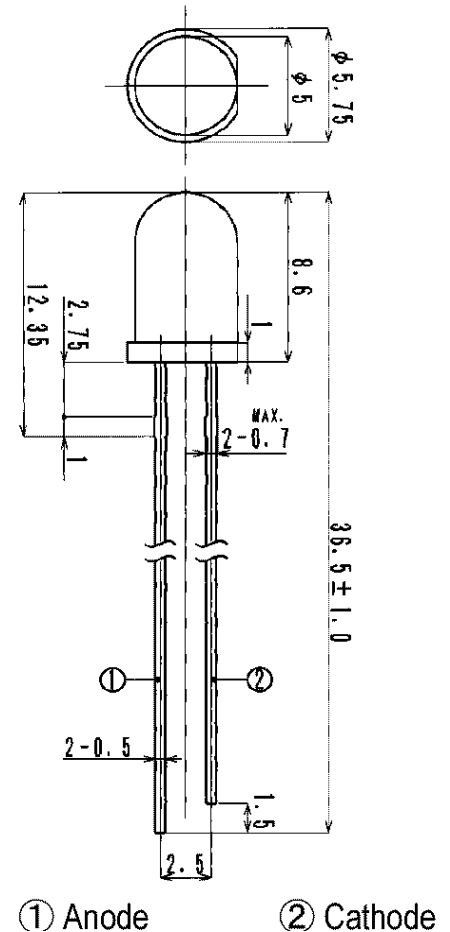
High Output Power  
Narrow Beam Angle  
High Reliability

### Applications

Optical Switches  
Bar-Code Reader

### Maximum Ratings (Ta=25°C)

Characteristic	Symbol	Max.	Test Condition	Unit
Forward Current	I <sub>F</sub>	100	-	mA
Pulsed Forward Current	I <sub>FP</sub>	1.00	tw=10μS, T=10mS	A
Reverse Voltage	V <sub>R</sub>	5	-	V
Power Dissipation	P <sub>D</sub>	180.00	-	mW
Operating Temperature	T <sub>opr</sub>	-20 ~ +80	-	°C
Storage Temperature	T <sub>stg</sub>	-30 ~+100	-	°C
Junction Temperature	T <sub>j</sub>	100	-	°C
Soldering Temperature	T <sub>sol</sub>	260	for 5 sec. max	°C



### Opto-Electrical Characteristics (Ta=25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =50mA	-	1.35	1.70	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V	-	-	10	μA
Power Output	PO	I <sub>F</sub> =50mA	-	10.00	-	mW
Half Intensity Beam Angle	θ	-	-	± 12°	-	deg.
Peak Wavelength	λ <sub>p</sub>	I <sub>F</sub> =50mA	-	945	-	nm
Spectral Line Half Width	Δλ	I <sub>F</sub> =50mA	-	50	-	nm
Rise Time	T <sub>r</sub>	I <sub>FP</sub> =50mA	-	1.00	-	ns
Fall Time	T <sub>f</sub>	I <sub>FP</sub> =50mA	-	1.00	-	ns
Temp Coefficient of PO	P/T	I <sub>F</sub> =10mA	-	-0.50	-	%/°C
Temp Coefficient of V <sub>F</sub>	V/T	I <sub>F</sub> =10mA	-	-1.30	-	mV/°C
Junction Capacitance	C <sub>j</sub>	1 MHz, V=0V	-	20	-	pF

## MTE9094N Graphs

