5mm Infrared Emitter

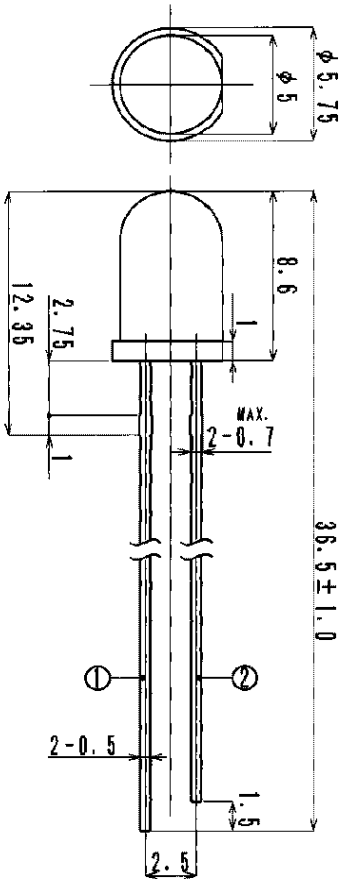
MTE9094N

Features

High Output Power
Narrow Beam Angle
High Reliability

Applications

Optical Switches
Bar−Code Reader



① Anode ② Cathode

Maximum Ratings (Ta=25°C)

Characteristic	Symbol	Max.	Test Condition	Unit
Forward Current	I_F	100	−	mA
Pulsed Forward Current	I_{FP}	1.00	tw=10μ S, T=10mS	A
Reverse Voltage	V_R	5	−	V
Power Dissipation	P_D	180.00	−	mW
Operating Temperature	T_{opr}	−20 ~ +80	−	°C
Storage Temperature	T_{stg}	−30 ~+100	−	°C
Junction Temperature	T_j	100	−	°C
Soldering Temperature	T_{sol}	260	for 5 sec. max	°C

Opto−Electrical Characteristics (Ta=25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Forward Voltage	V_F	I_F=50mA	−	1.35	1.70	V
Reverse Current	I_R	V_R=5V	−	−	10	μA
Power Output	PO	I_F=50mA	−	10.00	−	mW
Half Intensity Beam Angle	θ	−	−	± 12°	−	deg.
Peak Wavelength	λp	I_F=50mA	−	945	−	nm
Spectral Line Half Width	Δλ	I_F=50mA	−	50	−	nm
Rise Time	T_r	IFP=50mA	−	1.00	−	ns
Fall Time	T_f	IFP=50mA	−	1.00	−	ns
Temp Coefficient of PO	P/T	IF=10mA	−	−.50	−	%/°C
Temp Coefficient of VF	V/T	IF=10mA	−	−1.30	−	mV/°C
Junction Capacitance	Cj	1 MHz, V=0V	−	20	−	pF

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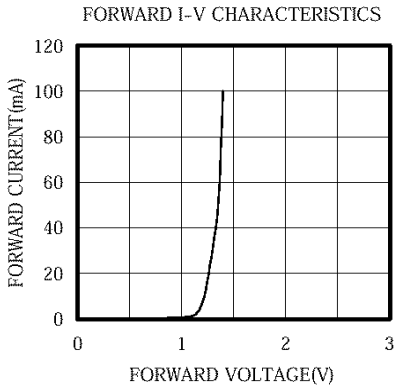
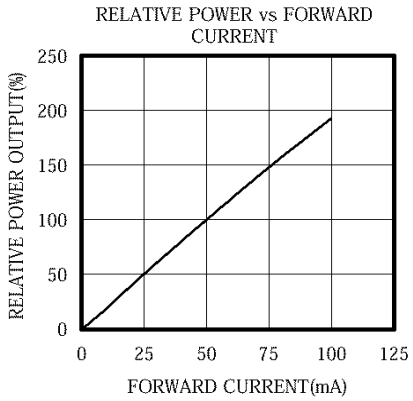
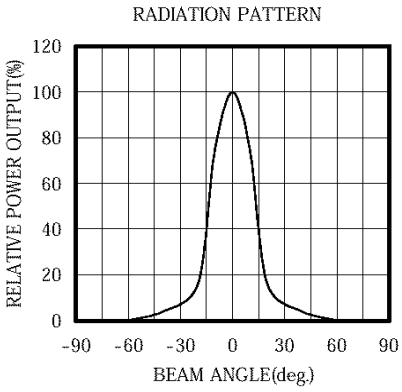
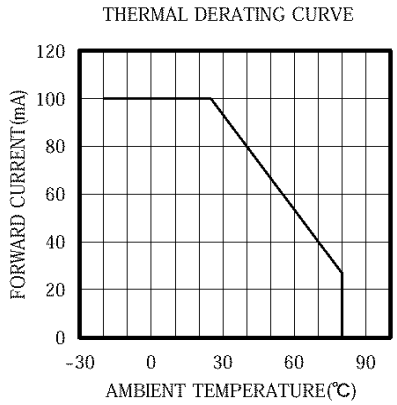
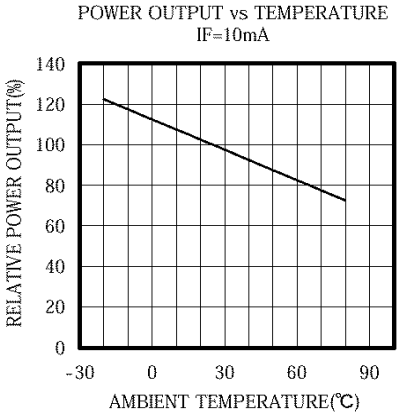
MTE9094N Graphs

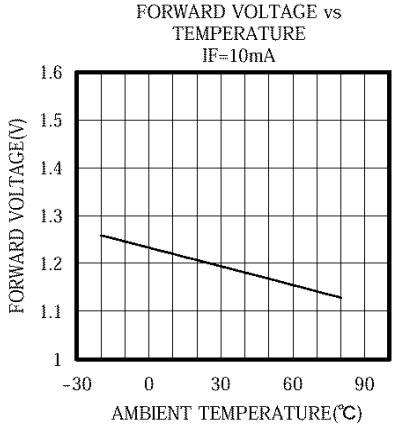


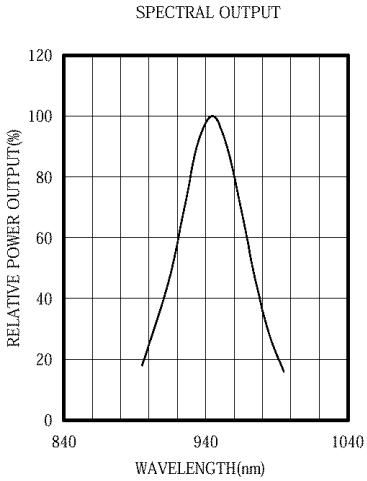












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