

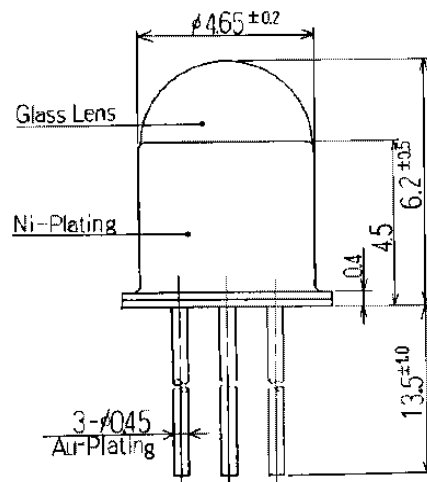
MTD8000N

Features

High Reliability in Demanding Environments

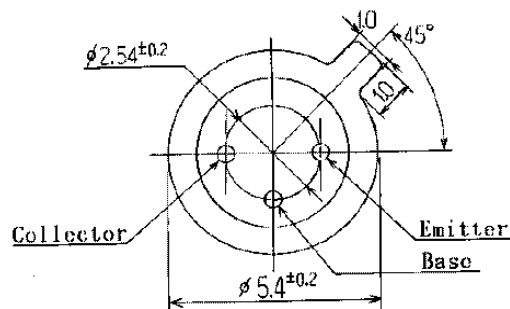
Applications

Optical Sensors
Optical Switches
Edge Sensing
Smoke Detectors



Maximum Ratings (Ta=25°C)

Characteristic	Symbol	Max.	Test Condition	Unit
Collector Power Dissipation	P _c	250	—	mW
Collector-Emitter Voltage	V _{CE}	30	—	V
Emitter-Collector Voltage	V _{EC}	5	—	V
Collector Current	I _c	50	—	mA
Operating Temperature	T _{opr}	-30~+100	—	°C
Storage Temperature	T _{stg}	-40~+125	—	°C
Junction Temperature	T _j	125	—	°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
C-E Saturation Voltage	V _{CE(sat)}	I _c =0.2mA Ee=5mW/cm ²	—	.20	—	μA
Light Current	I _L	V _{ce} =20V, Ee=0.5mW/cm ²	—	3.00	—	μA
Dark Current	I _D	V _{ce} =20V, Ee = 0mW/cm ²	—	—	100	nA
Spectral Sensitivity	λ	—	—	400~1100	—	μA
Peak Sensitivity Wavelength	λ _p	—	—	880	—	V
Beam Angle	θ	—	—	± 12°	—	deg.
Rise Time	T _r	R _L =100Ω, V _{ce} =5V, I _c =0.5mA	—	10000.00	—	ns
Fall Time	T _f	R _L =100Ω, V _{ce} =5V, I _c =0.5mA	—	10000.00	—	ns

* Color Temperature = 2870°K Standard Tungsten Lamp

MTD8000N Graphs

