

Peak Sensitivity Wavelength: 880nm

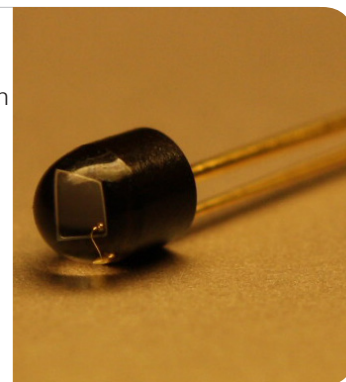
The MTD8000M3B-T is a photo transistor in a ceramic package. It is well suited for high reliability and high sensitivity applications.

FEATURES

- > High Reliability in Demanding Environments
- > Ceramic Package
- > Compact

APPLICATIONS

- > Optical Switches
- > Optical Sensors
- > Optical Detectors



Absolute Maximum Ratings (Ta=25°C)



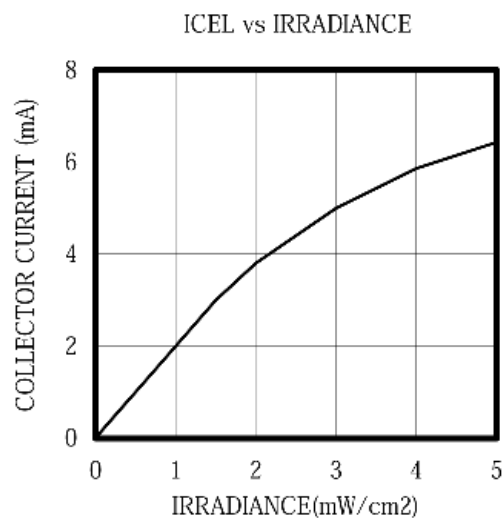
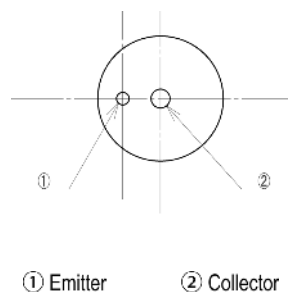
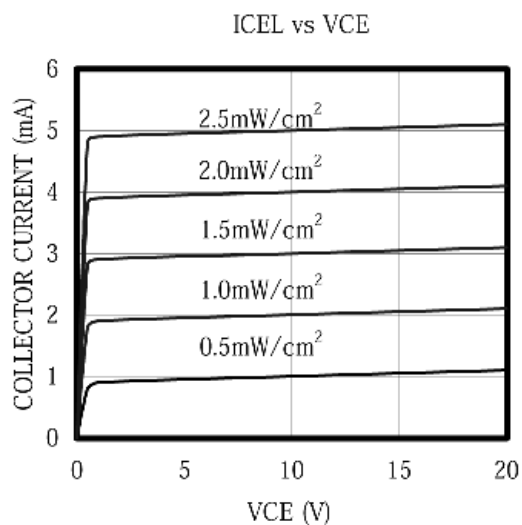
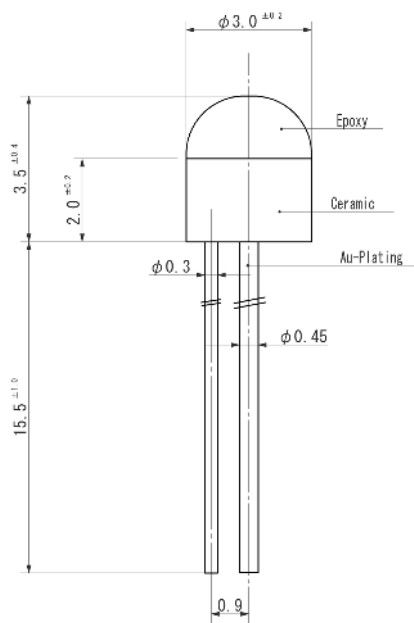
ITEMS	SYMBOL	RATINGS	UNIT
Collector-Emitter Voltage	V _{ceo}	20	V
Emitter-Collector Voltage	V _{eco}	5	V
Collector Current	I _c	30	mA
Collector Power Dissipation	P _c	80	mW
Operating Temperature Range	T _{opr}	-25 ~ +85	°C
Storage Temperature Range	T _{stg}	-30 ~ +100	°C
Junction Temperature	T _j	100	°C
Lead Soldering Temperature*1	T _{ls}	260	°C

*1: Time 5 Sec max, Position: Up to 3mm from the body.

Electrical & Optical Characteristics (Ta = 25°C)

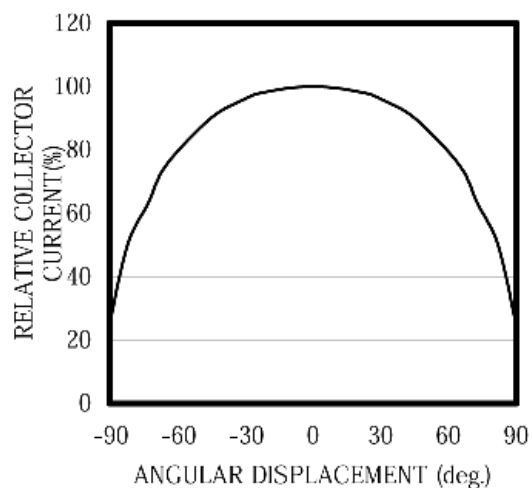
ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Collector Emitter Current	I _{cel}	V _{ce} =10V, E _e =0.5mW/cm ² *1	--	1.0	--	mA
Collector Dark Current	I _{ceo}	V _{ce} =10V, E _e =0mW/cm ² *1	--	--	100	nA
C-E Saturation Voltage	V _{CE(sat)}	I _c =0.2mA, E _e =5mW/cm ² *1	--	0.2	--	V
Spectral Sensitivity	λ	--	--	400~1100	--	nm
Peak Sensitivity Wavelength	λ _p	--	--	880	--	nm
Switching Time (Rise Time)	T _r	R _L =100Ω, V _{cc} =5V, I _c =0.5mA	--	10.0	--	μS
Switching Time (Fall Time)	T _f	R _L =100Ω, V _{cc} =5V, I _c =0.5mA	--	10.0	--	μS
Angular Response	Θ	--	--	±80	--	deg

*1: Color Temperature=2870°K Standard Tungsten Lamp.

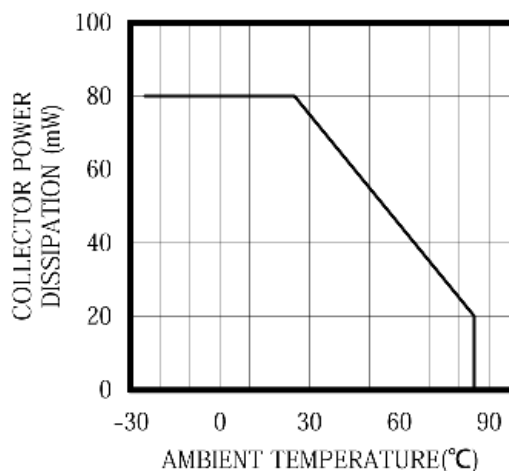


Unit: mm, Tolerance: ± 0.2

ANGULAR DISPLACEMENT



THERMAL DERATING CURVE



RELATIVE RESPONSE vs λ

