

PHOTO TRANSISTOR

MTD6160 SILICON NPN EPITAXIAL PLANER

APPLICATIONS

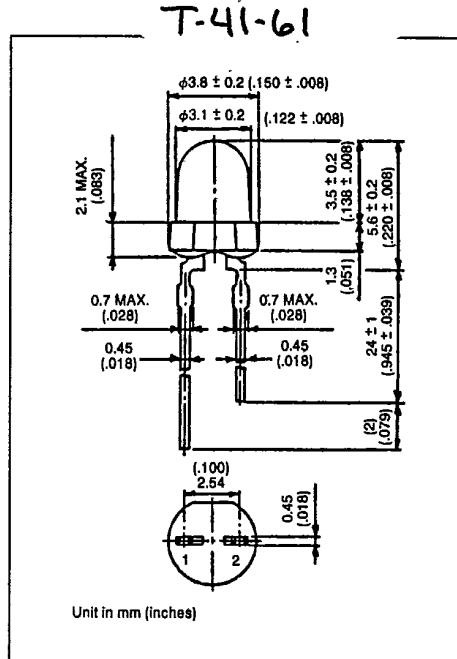
- OPTICAL SWITCH
- TAPE, CARD READERS
- POSITION SENSOR
- ENCODERS

FEATURES

- Spectrally and Mechanically Matched with IR Emitter MTE1090.
- Saturation Level Directly Compatible with Most TTL.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Emitter Voltage	V _{CEO}	30	V
Emitter-Collector Voltage	V _{ECO}	5	V
Collector Current	I _C	20	mA
Collector Power Dissipation	P _C	75	mW
Collector Power Dissipation Derating	ΔP _C /°C	-1.0	mW/°C
Operating Temperature Range	T _{opr}	-30 ~ 85	°C
Storage Temperature Range	T _{stg}	-30 ~ 100	°C



OPTO-ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP.	MAX.	UNIT
Dark Current	I _D (I _{CEO})	V _{CE} =24V, E=0	—	10	100	nA
Light Current	I _L (I _C)	V _{CE} =3V, E=0.1mW/cm ² (Note 1)	10	30	—	μA
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =5μA, E=0.1mW/cm ² (Note 1)	—	0.2	0.4	V
Switching Time	Rise Time	V _{CC} =10V, I _C =1mA, R _L =1kΩ (Fig. 1)	—	9	—	μs
	Fall Time		—	10	—	

Note: Color temperature = 2870°K Standard Tungsten Lamp.

PHOTO TRANSISTOR

T-41-61

Fig. 1 SWITCHING TIME TEST CIRCUIT

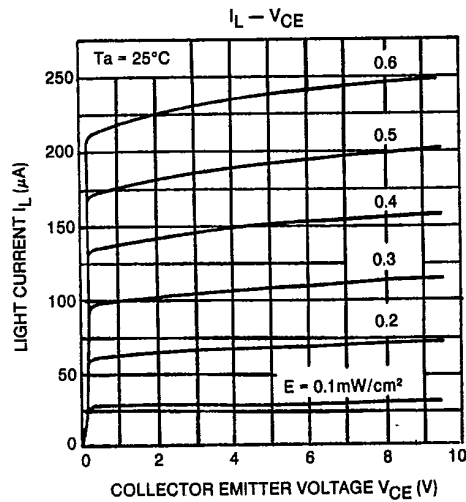
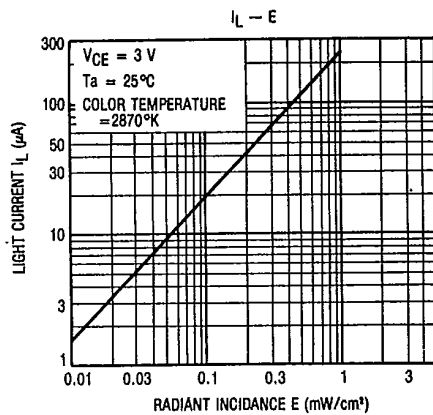
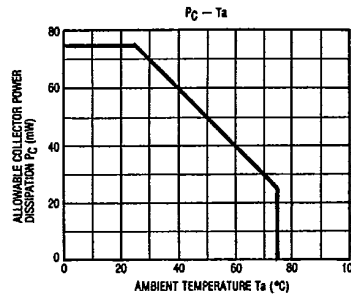
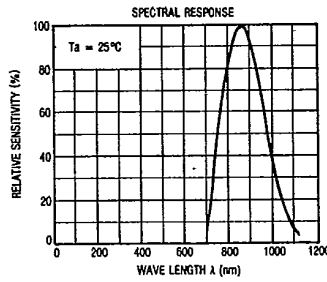
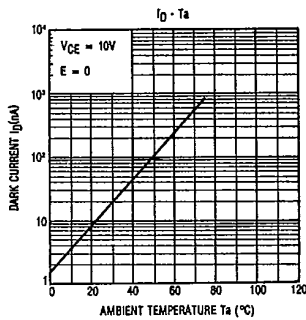
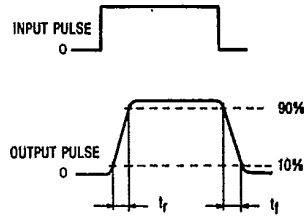
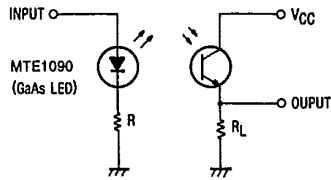


PHOTO TRANSISTOR

T-41-61

