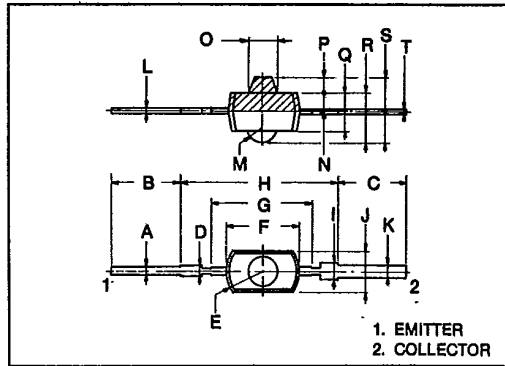


PHOTO TRANSISTOR T-41-61

MTD6060
SILICON NPN
EPITAXIAL PLANAR
SILICON PHOTO TRANSISTOR
FOR PHOTO SENSOR



APPLICATIONS

- OPTICAL SWITCH
- TAPE, CARD READERS
- POSITION SENSOR

FEATURES

- Spectrally and mechanically matched with IR emitter MTE1040.
- Small size package.
- Saturation level directly compatible with most TTL.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Emitter Voltage	V _{CEO}	20	V
Emitter-Collector Voltage	V _{ECO}	5	V
Collector Current	I _{C(L)}	20	mA
Collector Power Dissipation	P _C	50	mW
Collector Power Dissipation Derating	ΔP _C /°C	-0.9	mW/°C
Operating Temperature Range	T _{opr}	-20~75	°C
Storage Temperature Range	T _{stg}	-30~80	°C

SYMBOL	INCHES	MM
A	0.020	0.5
B	0.118 MIN	3 MIN
C	0.118 MIN	3 MIN
D	0.022	0.55
E	0.065	1.65
F	0.130	3.3
G	0.188	4.78
H	0.291	7.38
I	0.030	0.75
J	0.075	1.9
K	0.023	0.7
L	0.005	0.125
M	0.031	0.8
N	0.031	0.8
O	0.047	1.2
P	0.031	0.8
Q	0.070	1.77
R	0.089	2.27
S	0.121	3.07
T	0.005	0.125

OPTO-ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP.	MAX.	UNIT
Dark Current	I _D (I _{CEO})	V _{CE} =10V, E=0	—	10	100	nA
Light Current	I _L	V _{CE} =3V, E=0.1mW/cm ²	10	20	—	μA
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =1μA, E=0.1mW/cm ²	—	0.2	0.4	V
Switching Time	Rise Time	V _{CC} =10V, I _C =1mA, R _L =100Ω (Fig. 1)	—	2	—	μs
	Fall Time		—	3	—	

Fig. 1 SWITCHING TIME TEST CIRCUIT

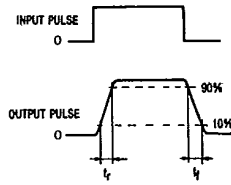
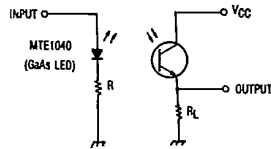


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T-41-61

