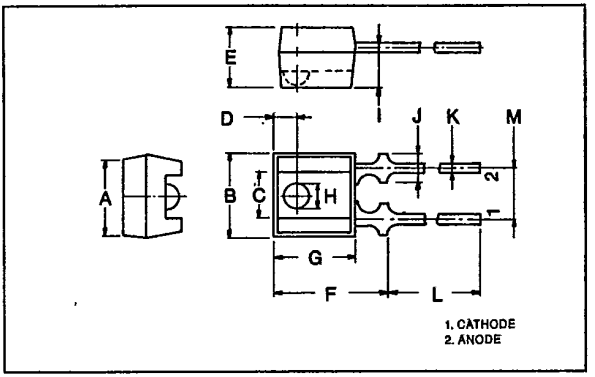
T-41-11

MTE1070A

GaAs INFRARED EMITTER

INFRARED LED FOR PHOTO SENSOR



SYMBOL	INCHES	MM
A	0.157	4.0
B	$0.173\ ^{+0}_{-0.010}$	$4.4\ ^{+0}_{-0.25}$
C	0.094 ± 0.012	2.4 ± 0.3
D	0.049	1.25
B	$0.118\ ^{+0}_{-0.010}$	$3\ ^{+0}_{-0.25}$
F	0.226	5.75
G	0.159	4.05
H	0.059	1.5
I	0.079	2.0
J	0.051	1.3
K	0.018	0.45
L	0.945	24 ± 1
M	0.100 ± 0.012	2.54 ± 0.3

APPLICATIONS

- OPTICAL SWITCH
- TAPE, CARD READERS

FEATURES

- Output spectrally compatible with silicon sensor MTD6170, MTD6180.
- High radiant power.
- High radiant intensity: I_E = 2mW / sr (Typ.)
- Suitable for photo interrupter assembly.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Forward Current		I_F	50	mA
Pulse Forward Current	(Note)	I_{FP}	600	mA
Reverse Voltage		V_R	5	V
Forward Current Derating		ΔI_F/°C	−0.33	mA/°C
Operating Temperature Range		T_{opr}	−25~85	°C
Storage Temperature Range		T_{stg}	−40~100	°C

Note: Pulse width ≦ 100μs, Repetitive frequency=100Hz.

OPTO-ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP.	MAX.	UNIT
Forward Voltage	V_F	I_F=10mA	1.00	1.15	1.30	V
Reverse Current	I_R	V_R=5V	—	—	10	μA
Radiant Intensity	I_E	I_F=20mA	0.8	2	—	mW/sr
Radiant Power	P_O	I_F=20mA	—	2.0	—	mW
Capacitance	C_T	V_R=0, f=1MHz	—	30	—	pF
Peak Emission Wave Length	λP	I_F=20mA	—	940	—	nm
Spectral Line Half Width	Δλ	I_F=20mA	—	50	—	nm

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