

(TLP811)

OPTICAL SHAFT POSITION AND VELOCITY MONITOR USING A DIGITALLY ENCODED DISC MOUNTED ON A SHAFT.

OPTICAL SENSING OF MARKS ON PAPER, PAPER TAPE OR IBM CARD.

END OF TAPE SENSOR USING A TRANSPARENT SECTION OF TAPE, A HOLE IN THE TAPE.

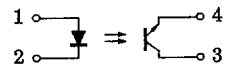
LIMIT SWITCH FOR MECHANICAL TRAVEL SUCH AS CAM SWITCHES, PRESSURE SWITCHES, MACHINE TOOL LIMIT SWITCHES, FOOT PEDAL SWITCHES, SAFETY INTERLOCK SWITCHES.

- Both chips face each other across a 5.0mm air gap.
- Slit width 0.9mm.
- No contact switching, therefore high reliability.
- Plastic case.
- Transistor detector offers faster switching speed than darlington detectors.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
LED	Forward Current	I_F	50	mA
	Reverse Voltage	V_R	5	V
DETECTOR	Collector-Emitter Voltage	V_{CEO}	35	V
	Emitter-Collector Voltage	V_{ECO}	5	V
	Collector Power Dissipation	P_C	75	mW
	Collector Current	I_C	50	mA
Operating Temperature Range		T_{opr}	-25~85	°C
Storage Temperature Range		T_{stg}	-40~100	°C

PIN CONNECTION



1. ANODE
2. CATHODE
3. COLLECTOR
4. EMITTER

Weight : 0.79g (TYP.)

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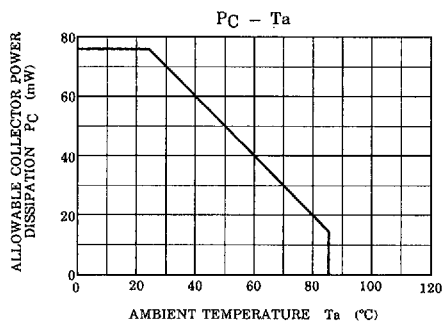
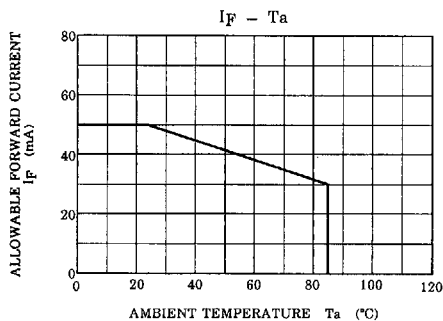
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
LED	Forward Voltage	V_F	$I_F = 20\text{mA}$	—	—	1.7	V
	Reverse Current	I_R	$V_R = 3\text{V}$	—	—	100	μA
	Capacitance	C_T	$V = 0, f = 1\text{MHz}$	—	30	—	pF
DETECTOR	Dark Current	$I_D (I_{CEO})$	$V_{CE} = 10\text{V}, I_F = 0$	—	—	100	nA
	Capacitance	C_T	$V = 0, f = 1\text{MHz}$	—	13	—	pF
COUPLED	On-State Collector Current	$I_C (\text{ON}) 1$	$V_{CE} = 5\text{V}, I_F = 7.5\text{mA}$	350	—	—	μA
		$I_C (\text{ON}) 2$	$V_{CE} = 5\text{V}, I_F = 20\text{mA}$	1800	—	—	
	Collector-Emitter Saturation Voltage	$V_{CE} (\text{sat})$	$I_F = 20\text{mA}, I_C = 1800\mu\text{A}$	—	—	0.6	V
	Rise and Fall Time	t_r, t_f	$V_{CC} = 5\text{V}, I_C = 2\text{mA}, R_L = 100\Omega$	—	6	—	μs

PRECAUTION

Please be careful of the followings.

1. Soldering temperature : 260°C MAX.
Soldering time : 5s MAX. (Soldering portion of lead : up to 1.5mm from the body of the device)
2. If the lead is formed, Soldering shall be performed of the lead forming.
3. Avoid using the solvents except the follows, when washing off flux and wiping off stain on the device.



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OUTLINE

Unit in mm

