

TOSHIBA PHOTOINTERRUPTER INFRARED LED + PHOTOTRANSISTOR

TLP812

MOTOR ROTATION AND IRIS DETECTION FOR CAMERA

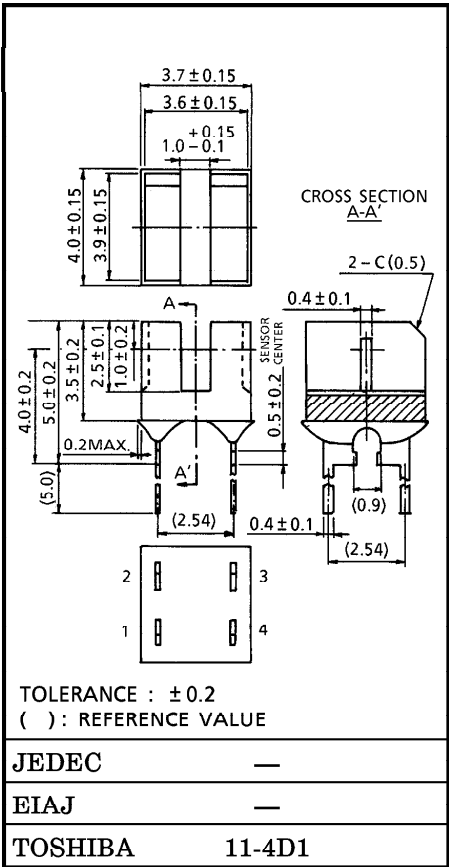
TRUCK DETECTION OF MICRO FLOPPY DISK DRIVE

Unit in mm

- Very small package
- High resolution : Slit width 0.4mm
- Gap : 1mm
- Directly mountable on PCB using the stand off of lead

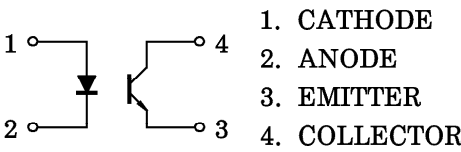
MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
LED	Forward Current	IF	50	mA
	Forward Current Derating (Ta>25°C)	IF/°C	-0.67	mA/°C
	Reverse Voltage	VR	5	V
DETECTOR	Collector-Emitter Voltage	VCEO	35	V
	Emitter Collector Voltage	VECO	5	V
	Collector Current	IC	20	mA
	Collector Power Dissipation	PC	75	mW
	Collector Power Dissipation Derating (Ta>25°C)	ΔPC/°C	-1	mW/°C
Operating Temperature Range		Topr	-25~85	°C
Storage Temperature Range		Tstg	-40~100	°C



Weight : 0.08g (typ.)

PIN CONNECTION



961001EBC2

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● Gallium arsenide (GaAs) is a substance used in the products described in this document. GaAs dust and fumes are toxic. Do not break, cut or pulverize the product, or use chemicals to dissolve them. When disposing of the products, follow the appropriate regulations. Do not dispose of the products with other industrial waste or with domestic garbage.

● The products described in this document are subject to foreign exchange and foreign trade control laws.

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● The information contained herein is subject to change without notice.

OPTO-ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
LED	Forward Voltage	V_F	$I_F = 10\text{mA}$	1.00	1.15	1.30	V
	Reverse Current	I_R	$V_R = 5\text{V}$	—	—	10	μA
	Capacitance	C_T	$V = 0, f = 1\text{MHz}$	—	30	—	pF
DETECTOR	Dark Current	$I_D (I_{CEO})$	$V_{CE} = 20\text{V}, I_F = 0$	—	—	100	nA
	Capacitance	C_T	$V = 0, f = 1\text{MHz}$	—	13	—	pF
COUPLED	Current Transfer Ratio	I_C / I_F	$V_{CE} = 0.6\text{V}, I_F = 5\text{mA}$	5	—	—	%
	Collector-Emitter Saturation Voltage	$V_{CE}(\text{sat})$	$I_F = 8\text{mA}, I_C = 0.1\text{mA}$	—	0.1	0.4	V
	Rise Time	t_r	$V_{CC} = 5\text{V}, I_C = 2\text{mA}, R_L = 1\text{k}\Omega$	—	50	—	μs
	Fall Time	t_f		—	50	—	μs

PRECAUTION

Please be careful of the followings.

1. Soldering temperature : 260°C max Soldering time : 5 sec max
Soldering portion : at above 1.5mm from the lower part of the body.
2. Be careful of not attaching residual flux and chemicals to the light emitting surface and light receiving surface.

ENVIRONMENT

- Should not be exposed to corrosive gas such as hydrogen sulfide gas and a sea breeze.
- Should not be exposed to visible dust.
- Should not be exposed to direct sunlight.
If any case, should not be subject to load which may result in deformation / deterioration of products.

