

MICROPRIDE LTD.

T-41-8

DATA SHEET No. 4**Photo-Interrupter
(Mode: SY-508 SY-509 SY-510)**

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Features

- High reliability
- High speed
- Capable of a wide application
- Easy to be mounted on PCB
- 0.5mm aperture
- Low cost

Application

- Tape-end Sensor
- Timing Sensor
- Edge Sensor
- Counter Sensor

Absolute Maximum Ratings (Ta = 25°C)

	SYMBOL	RATINGS	UNIT
INPUT			
Forward DC current	I_f	60	mA
Pulse forward current	I_{fp}	—	A
Reverse voltage	V_r	6	V
OUTPUT			
Collector emitter voltage	BV_{ceo}	30	V
Emitter collector voltage	BV_{eco}	6	V
Power dissipation	P_c	100	mW
COUPLED			
Storage temperature	T_{str}	-25 ~ +100	°C
Operating temperature	T_{opr}	-20 ~ +85	°C
Lead Soldering temp. (5 sec)		250	°C

Electro-Optical Characteristics (Ta = 25°C)

ITEMS	SYMBOL	MIN.	TYP.	MAX.	CONDITIONS	
INPUT						
Forward voltage	V_f	—	1.2	1.5	V	$I_f = 30\text{mA}$
Reverse leakage current	I_r	—	—	10	μA	$V_r = 4\text{V}$
OUTPUT						
Dark current	I_d	—	—	100	nA	$V_{CE} = 10\text{V}$ $I_f = 0$
Junction capacitance	C_t	—	—	—		
COUPLED						
Output current	I_c	0.5	—	—	mA	$I_f = 20\text{mA}$ $V_{CE} = 5\text{V}$
Rise time	T_r	—	5	—	μs	$I_c = 2\text{mA}$ $V_{CE} = 5\text{V}$
Fall time	T_f	—	5	—	μs	$R_L = 100\text{ohm}$

Package Dimension: (Unit: mm)