

ATIR0721DS

Photointerrupter - Reflective Type

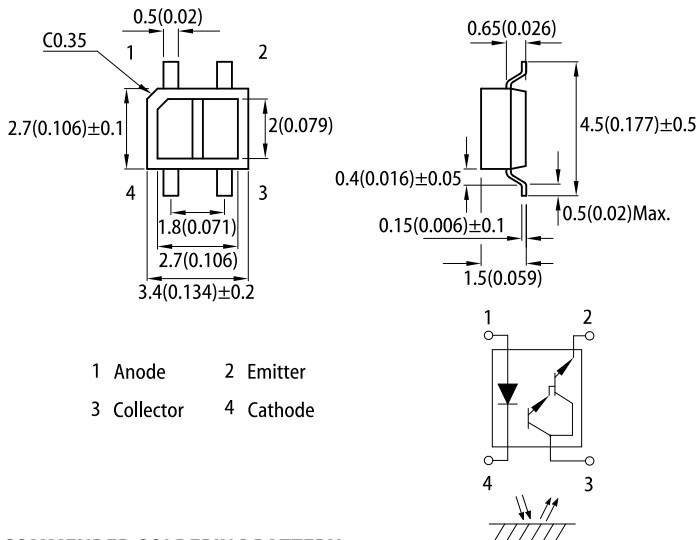
FEATURES

- Compact and thin
- Visible light cut-off type
- High sensitivity
- Moisture sensitivity level: 4
- Package: 1000 pcs / Reel
- RoHS compliant

APPLICATIONS

- Cassette tape recorders, VCRs
- Floppy disk drives
- Various microcomputerized control equipment

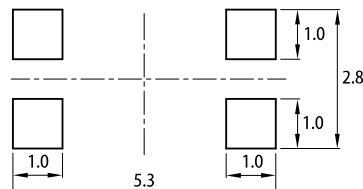
PACKAGE DIMENSIONS



- 1 Anode 2 Emitter
3 Collector 4 Cathode

RECOMMENDED SOLDERING PATTERN

(units : mm; tolerance : ± 0.1)



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.

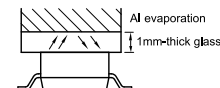
ELECTRICAL / OPTICAL CHARACTERISTICS at T_A=25°C

Parameter	Symbol	Value			Units	Test Conditions		
		Min.	Typ.	Max.				
Input	Forward voltage	V _F	1.0	1.2	1.5	V	I _F =20mA	
	Reverse current	I _R	-	-	10	μA	V _R =6V	
Output	Collector dark current	I _{CEO}	-	-	10 ⁻⁶	A	I _F =0mA, V _{CE} =10V	
Transfer characteristics	Collector Current ^[1]	I _C	-	10	-	mA	I _F =4mA, V _{CE} =2V	
	Leak Current ^[2]	I _{LEAK}	-	-	5	μA	I _F =4mA, V _{CE} =5V	
	Response time	Rise time	t _r	-	80	400	μs	V _{CE} =2V, I _C =10mA R _L =100 Ω, d=1mm
		Fall time	t _f	-	70	400	μs	

Notes:

1. Test condition of collector current is shown below.
2. Without reflective object.
3. Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Test Condition and Arrangement for Collector Current



ABSOLUTE MAXIMUM RATINGS at $T_A=25^\circ\text{C}$

	Parameter	Symbol	Rating	Unit
Input	Forward current	I_F	50	mA
	Reverse voltage	V_R	6	V
	Power dissipation	P_D	75	mW
	Peak Forward Current (Pulse Width $\leq 100\mu\text{s}$, Duty Cycle=1%)	I_{FP}	1	A
Output	Collector-emitter voltage	V_{CEO}	35	V
	Emitter-collector voltage	V_{ECO}	6	V
	Collector current	I_C	50	mA
	Collector power dissipation	P_C	75	mW
Operating temperature		T_{opr}	-25~+85	$^\circ\text{C}$
Storage temperature		T_{stg}	-40~+100	$^\circ\text{C}$

Note:
1. Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity – Ref JEDEC/JESD625-A and JEDEC/J-STD-033.

TECHNICAL DATA

