

ARB031A

Photointerrupter - Transmissive Type



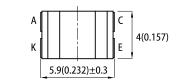
FEATURES

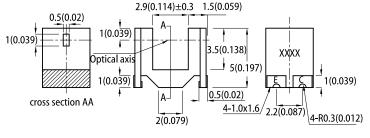
- Ultra-compact with a 5.9mm width photointerrupter and 2.9mm width slot
- · PCB surface mounting type
- · High resolution with a 0.5mm width aperture
- · Fully tinned soldering pads
- Moisture sensitivity level: 4
- Package: 1000 pcs / reel
- RoHS compliant

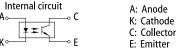
APPLICATIONS

- Digital Camera
- Printers
- Optical Control Equipment
- · Paper Shredder

PACKAGE DIMENSIONS

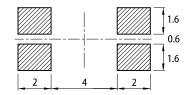






RECOMMENDED SOLDERING PATTERN

(units: mm; tolerance: ± 0.15)



- Notes:

 1. All dimensions are in millimeters (inches).

 2. Tolerance is ±0.15(0.006") 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			Unit	Conditions
			Min.	Тур.	Max.	Oilit	Conditions
Input	Forward voltage	V _F	-	1.1	1.3	V	IF=5mA
	Reverse current	I _R	-	-	10	μA	V _R =5V
Output	Collector current	Ic	50	150	500	μA	IF=5mA,VCE=5V
	Collector dark current	I _D	-	-	100	nA	VcE =10V,0LX
	Collector-emitter saturation voltage	V _{CE(sat)}	-	0.1	0.4	V	Ic=50µA, Ir=20mA
Rise time		t _r	-	8	-	II.C	Vce=5V, RL=1K Ω
Fall time		t _f	-	10	-	μs	Ic=100µA

^{1.} Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

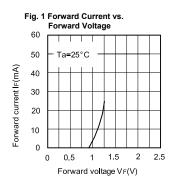


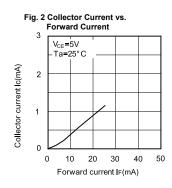
ABSOLUTE MAXIMUM RATINGS at T_A=25°C

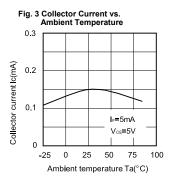
	Parameter	Symbol	Rating	Unit
Input	Forward current [1]	l _F	25	mA
	Reverse voltage	V _R	5	V
	Power dissipation	P _D	35	mW
	Peak Forward Current (Pulse Width ≤100μs, Duty Cycle=1%)	I _{FP}	1	А
Output	Collector-emitter voltage	V _{CEO}	20	V
	Emitter-collector voltage	V _{ECO}	5	V
	Collector current	I _C	20	mA
	Collector power dissipation	P _C	75	mW
Operating temperature		T _{opr}	-40~+85	°C
Storage temperature		T _{stg}	-40~+90	°C
Manual soldering [2]		T _{sol}	300	°C

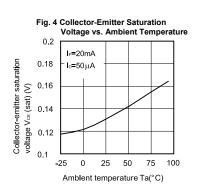
Notes:

TECHNICAL DATA









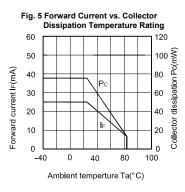
Notes.

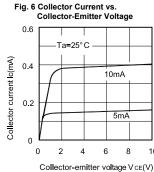
1. Refer to the temperature rating chart if the ambient temperature exceeds 25°C.

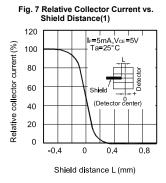
2. Complete soldering within 3 seconds.

3. 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.









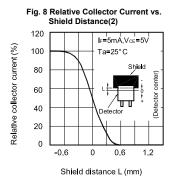
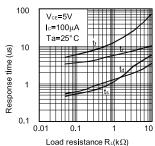
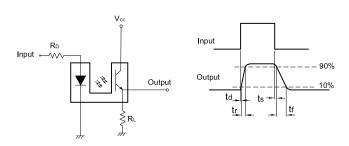


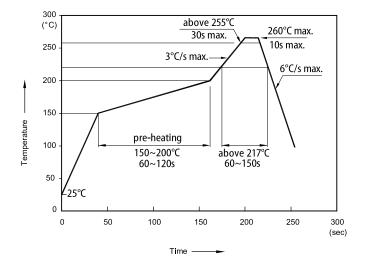
Fig. 9 Response Time vs. Load Resistance



Test Circuit for Response Time

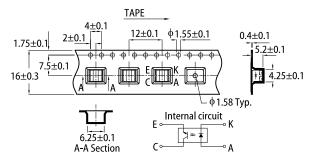


REFLOW SOLDERING PROFILE for LEAD-FREE SMD PROCESS

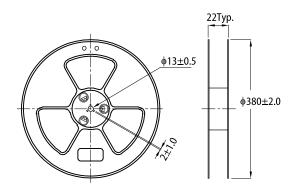


- Don't cause stress to the LEDs while it is exposed to high temperature.
 The maximum number of reflow soldering passes is 2 times.
 Reflow soldering is recommended. Other soldering methods are not recommended as they might cause damage to the product.

TAPE SPECIFICATIONS (units: mm)



REEL DIMENSION (units: mm)





PACKING & LABEL SPECIFICATIONS

