

## ARB011

### Photointerrupter - Transmissive Type

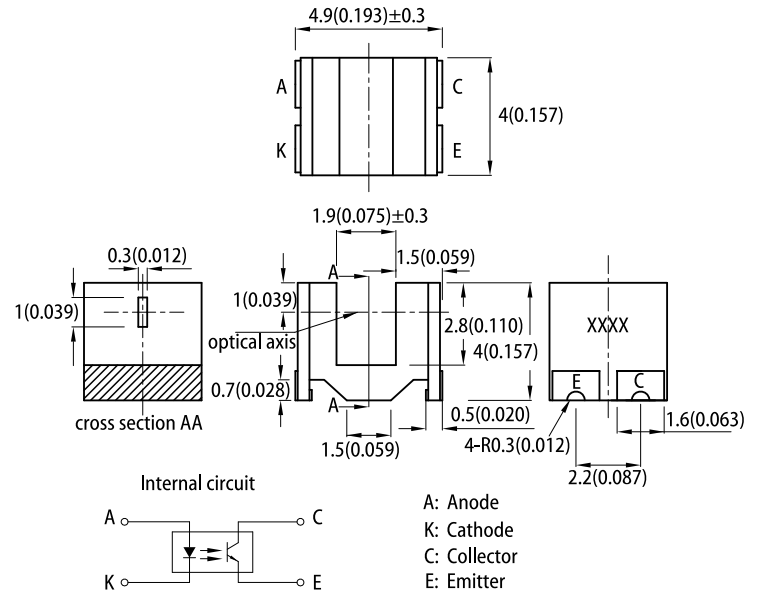
#### FEATURES

- Ultra-compact
- High sensing accuracy (Slit width: 0.3mm)
- Gap between light emitter and detector: 1.9mm
- Moisture sensitivity level: 4
- Package: 1500 pcs / reel
- RoHS compliant

#### APPLICATIONS

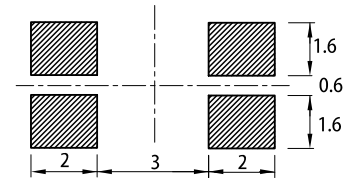
- Floppy disk drives, Camera
- Various microcomputerized control equipment

#### PACKAGE DIMENSIONS



#### RECOMMENDED SOLDERING PATTERN

(units : mm ; tolerance : ± 0.15)



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.15(0.006^*)$  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 $T_A=25^\circ\text{C}$

	Parameter	Symbol	Value			Unit	Conditions
			Min.	Typ.	Max.		
Input	Forward voltage	$V_F$	-	1.1	1.3	V	$I_F=5\text{mA}$
	Reverse current	$I_R$	-	-	10	$\mu\text{A}$	$V_R=5\text{V}$
Output	Collector current	$I_C$	50	650	-	$\mu\text{A}$	$I_F=5\text{mA}, V_{CE}=5\text{V}$
	Collector dark current	$I_D$	-	-	100	nA	$V_{CE}=10\text{V}, 0\text{LX}$
	Collector-emitter saturation voltage	$V_{CE(sat)}$	-	0.1	0.4	V	$I_C=50\mu\text{A}, I_F=20\text{mA}$
	Rise time	$t_r$	-	8	-	$\mu\text{s}$	$V_{CE}=5\text{V}, R_L=1\text{K}\Omega, I_C=100\mu\text{A}$
	Fall time	$t_f$	-	10	-		

#### Note:

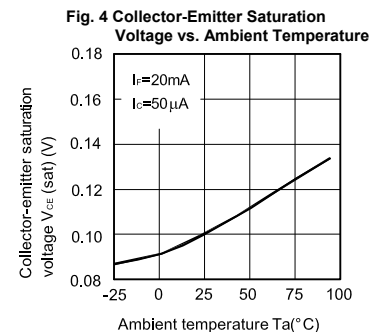
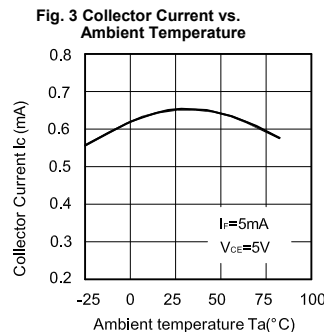
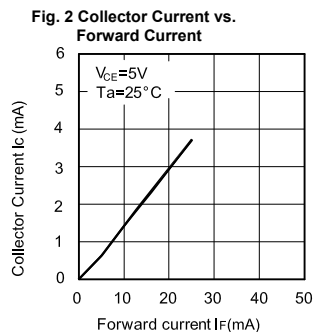
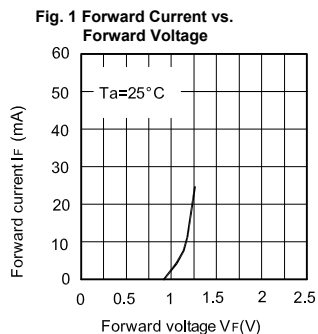
1. Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

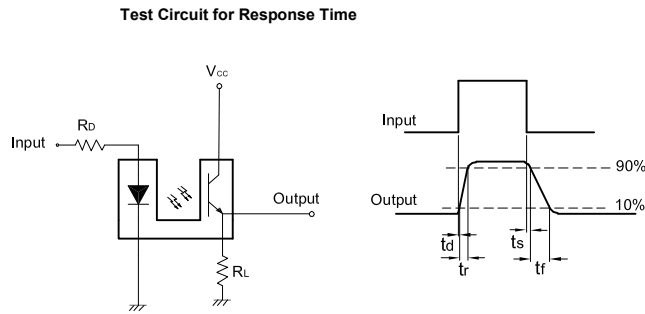
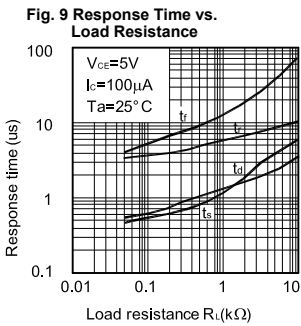
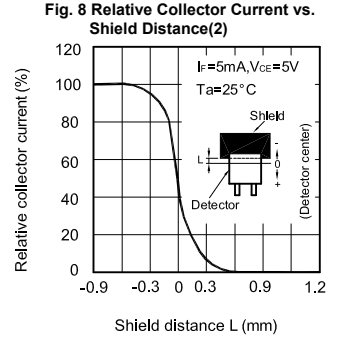
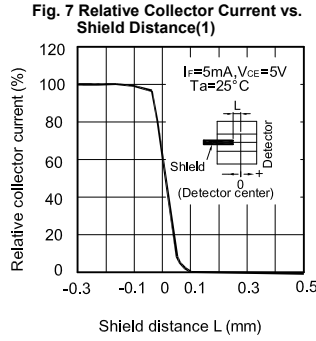
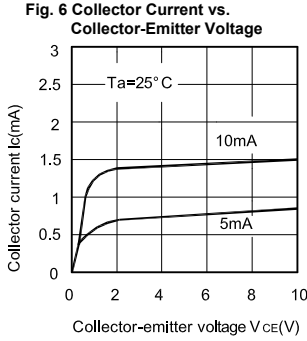
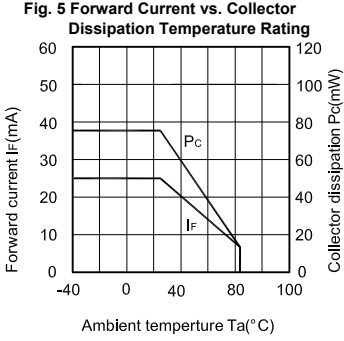
### ABSOLUTE MAXIMUM RATINGS at $T_A=25^\circ\text{C}$

Parameter		Symbol	Rating	Unit
Input	Forward current <sup>[1]</sup>	$I_F$	25	mA
	Reverse voltage	$V_R$	5	V
	Power dissipation	$P_D$	35	mW
Output	Collector-emitter voltage	$V_{CE0}$	20	V
	Emitter-collector voltage	$V_{ECO}$	5	V
	Collector current	$I_C$	20	mA
	Collector power dissipation	$P_C$	75	mW
Operating temperature		$T_{opr}$	-30~+85	$^\circ\text{C}$
Storage temperature		$T_{stg}$	-40~+90	$^\circ\text{C}$
Manual soldering <sup>[2]</sup>		$T_{sol}$	300	$^\circ\text{C}$

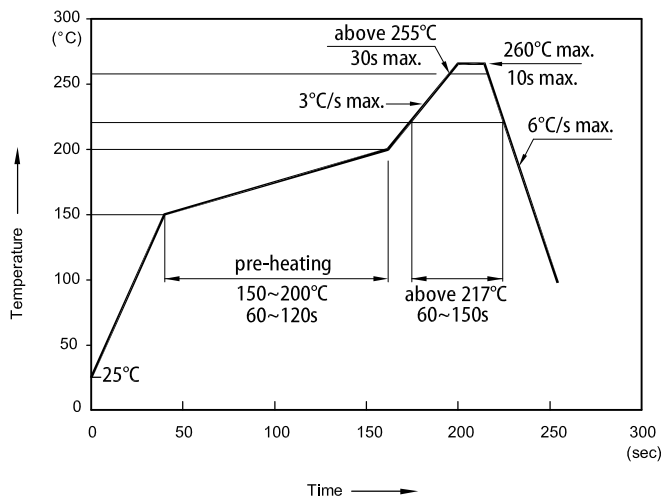
Notes:  
 1. Refer to the temperature rating chart if the ambient temperature exceeds  $25^\circ\text{C}$ .  
 2. Complete soldering within 3 seconds.  
 3. Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity – Ref JEDEC/JESD625-A and JEDEC/J-STD-033.

### TECHNICAL DATA



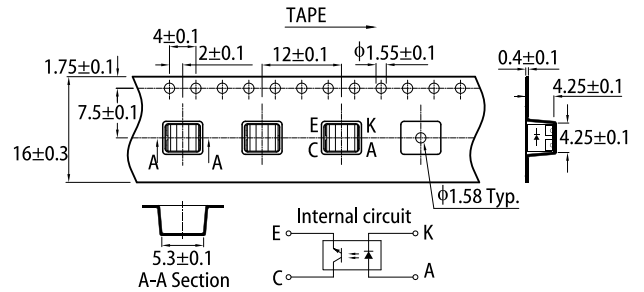


**REFLOW SOLDERING PROFILE for LEAD-FREE SMD PROCESS**

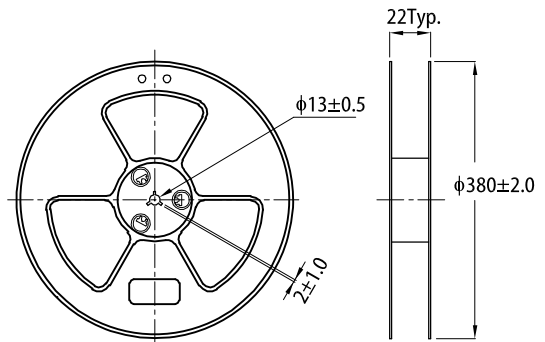


- Notes:
1. Don't cause stress to the LEDs while it is exposed to high temperature.
  2. The maximum number of reflow soldering passes is 2 times.
  3. Reflow soldering is recommended. Other soldering methods are not recommended as they might cause damage to the product.

**TAPE SPECIFICATIONS (units : mm)**



**REEL DIMENSION (units : mm)**



## PACKING & LABEL SPECIFICATIONS

