

# 承 認 書

## SPECIFICATION FOR APPROVAL

貴公司 拍檔科技股份有限公司  
Customer \_\_\_\_\_

產品名稱 MF-2352 RFID Antenna  
part NO \_\_\_\_\_

發送日期 \_\_\_\_\_  
Sending Date \_\_\_\_\_

深圳合纵富

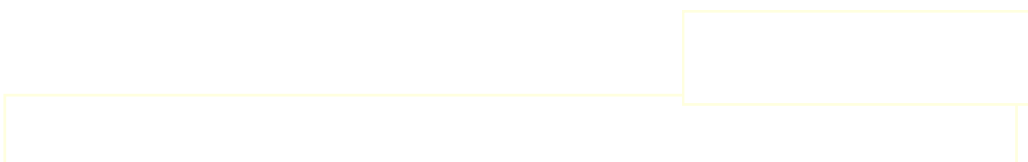
貴公司承認書

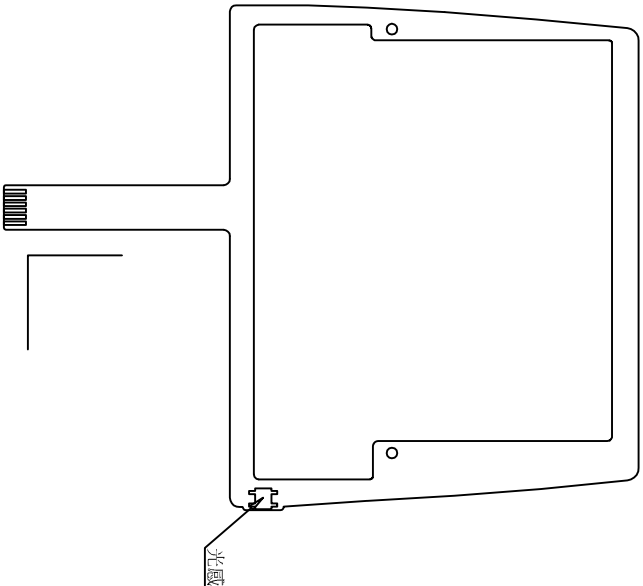
深圳合纵富科技有限公司  
Unifou Technology Co.,LTD  
深圳市宝安区西乡街道前进二路美兰商务中心1906室  
Room2209,Melian business center,2nd Qianjin Road,Xixiang Street,Baoan District,Shenzhen City,  
Guangdong Province,P.R.C.  
邮编(PostCode):518102 电话(Tel):+86-755-23596906

# MF-2352 RFID Antenna产品规格书

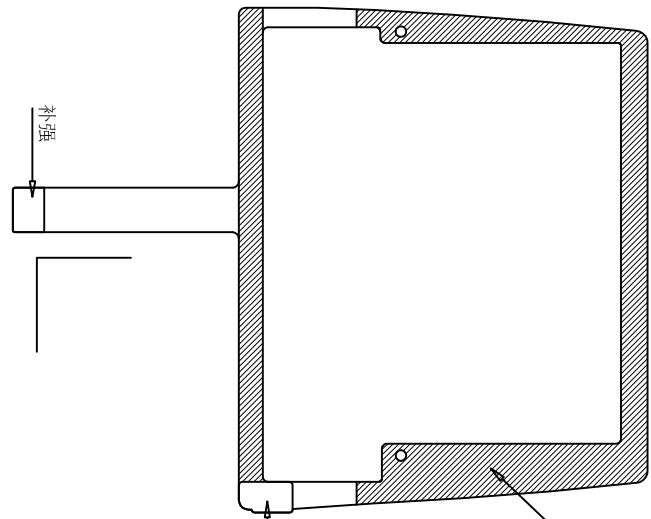
合纵富保密

深圳合纵富科技有限公司












TOP



BOT

-  禁布区域
-  限高4.0
-  限高7.0mm
-  限高2.0mm
-  CU层
-  按键防拆

投影方向		日期		
版本	V02.2	日期	2017-04-13	
单位	mm	比例	1:1	
制图	设计	审核		承认
周暖				
品名	FPC-RFID		厚度	0.2
机种	USS801			
深圳合纵富科技有限公司				

## Specification

Operation Frequency	13.56MHz
Antenna GAIN	0.6dBi
Operation Temperature	-20°C to + 85°C
Storage Temperature	-20°C to + 85°C





ISO14001 認證通過  
TS16949 認證通過

客戶 Customer :

呈送者 Director : 代一弘

職稱 Title :

客戶料號 Customer :

# 樣品認定書

## For Approval

謹致執事者：茲提供敝公司產品之有關詳細規格及圖面資料，敬請給予辦理測試認定手續。謝謝！

同時敬請返回一份有貴司測試認定後之本樣品認定書！謝謝！

認定意見：

We are please sending you herewith ou specification and drawings for your approval.TK'S!

Please return to us one copy "For Approval" with your approved signatures.TK'S!

億光品名 Commodity : ITR8307/S17/TR8

型號 Model No :

發出日期 Issue Date : 2012-02-20

認定日期 Approval date:

認定簽章 Approval Signatures

認定簽章 Approval Signatures		

億光電子工業股份有限公司

EVERLIGHT ELECTRONICS CO.,LTD

No.25,Lane,76,Sec.3.Chung yang road,Tucheng, Taipei Taiwan.

中国一级代理商：

深圳市卅亿光电有限公司

CHIPLIGHT ELECTRONICS CO.,LTD

<http://www.chiplight.cn>

TEL:86 - 755 - 3359 0909 FAX: 86 - 755 - 3359 0908

深圳市寶安43區廣深路(原107国道)新安段245号六楼 郵編： 518101

銷售產品：紅外線發射管、接收管, 紅外接收頭、貼片接收頭, 高速光耦, 光電開關、貼片光電開關, 發光二極管、貼片發光管, LED閃光燈、貼片數碼管, 帶座發光管, 光/色感接收管及大功率等光電器件。

# Technical Data Sheet

## Opto Interrupter

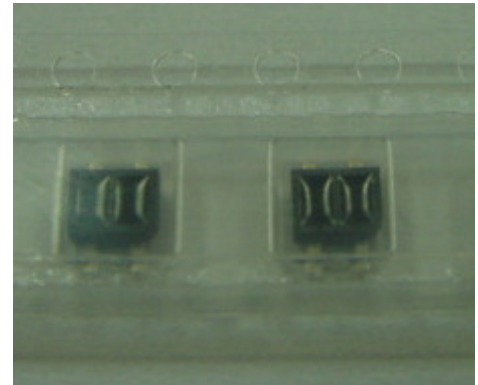
### ITR8307/S17/TR8

#### ■ Features

- Fast response time
- High sensitivity
- Cut-Off visible wavelength
- Thin
- Compact
- 

#### ■ Descriptions

**ITR8307/S17/TR8** is a light reflection switch which includes a GaAs IR-LED transmitter and a NPN photo-transistor with a high photosensitive receiver for short distance, operating in the infrared range. Both components are mounted side- by- side in a plastic package.



#### ■ Applications

- Camera
- VCR
- Floppy disk driver
- Cassette type recorder
- Various microcomputer control equipment

#### ■ Device Selection Guide

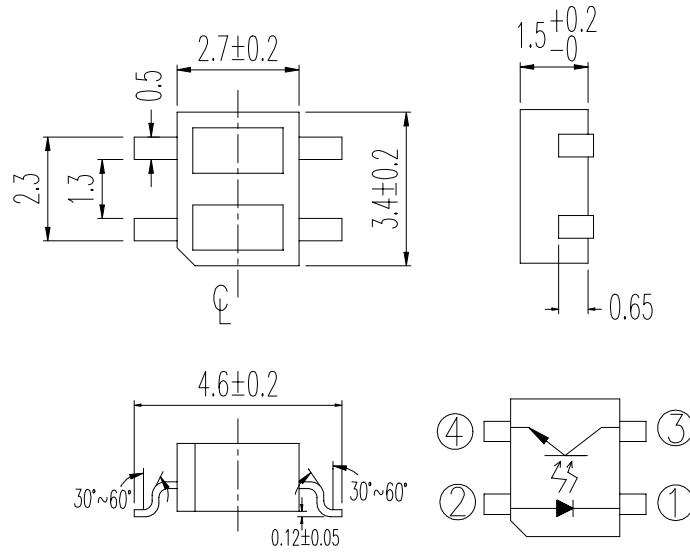
Device No.	Chip Material
IR	GaAs
PT	Silicon

SHENZHEN OFFICE:

TEL: 86-755-33590909 FAX: 86-755-33590908 E-mail: evlight@163.com

Device No: DRX-083-118

**Package Dimensions**



- ① : CATHODE
- ② : ANODE
- ③ : COLLECTOR
- ④ : EMITTER

**Notes:** 1.All dimensions are in millimeters  
 2.Tolerances unless dimensions  $\pm 0.15$ mm

**Absolute Maximum Ratings (Ta=25°C)**

Parameter		Symbol	Ratings	Unit
Input	Power Dissipation at(or below) 25°C Free Air Temperature	Pd	75	mW
	Reverse Voltage	V <sub>R</sub>	5	V
	Forward Current	I <sub>F</sub>	50	mA
	Peak Forward Current (*1) Pulse width ≤ 100 μs, Duty cycle=1%	I <sub>FP</sub>	1	A
Output	Collector Power Dissipation	P <sub>C</sub>	75	mW
	Collector Current	I <sub>C</sub>	50	mA
	Collector-Emitter Voltage	B V <sub>CEO</sub>	30	V
	Emitter-Collector Voltage	B V <sub>ECO</sub>	5	V
Operating Temperature		Topr	-20~+70	°C
Storage Temperature		Tstg	-30~+80	°C
Lead Soldering Temperature (*2)		Tsol	260	°C

(\*1) tw=100 μsec., T=10 msec. (\*2) t=5 Sec

**Electro-Optical Characteristics (Ta=25°C)**

Parameter		Symbol	Min.	Typ.	Max.	Unit	Conditions	
Input	Forward Voltage	V <sub>F</sub>	---	1.2	1.6	V	I <sub>F</sub> =20mA	
	Reverse Current	I <sub>R</sub>	---	---	10	μA	V <sub>R</sub> =5V	
	Peak Wavelength	λ <sub>P</sub>	---	940	---	nm	---	
Output	Dark Current	I <sub>CEO</sub>	---	---	100	nA	V <sub>CE</sub> =10V	
	C-E Saturation Voltage	V <sub>CE(sat)</sub>	---	---	0.4	V	I <sub>C</sub> =2mA ,Ee=1mW/cm <sup>2</sup>	
Transfer Characteristics	Light Current	I <sub>C(ON)</sub>	B	180	---	300	μA	V <sub>CE</sub> =5V I <sub>F</sub> =10mA
			C	250	---	440		
	Leakage Current	I <sub>CEOD</sub>	---	---	1	μA		
	Rise time	t <sub>r</sub>	---	20	---	μsec	V <sub>CE</sub> =2V	
Fall time	t <sub>f</sub>	---	20	---	μsec	I <sub>C</sub> =100 μA R <sub>L</sub> =1KΩ		



**Typical Electrical/Optical/Characteristics Curves for IR**

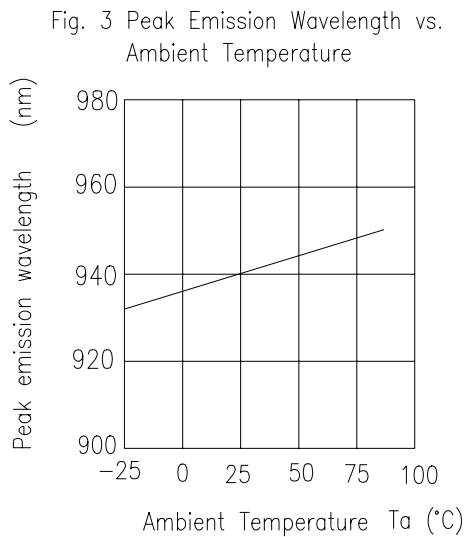
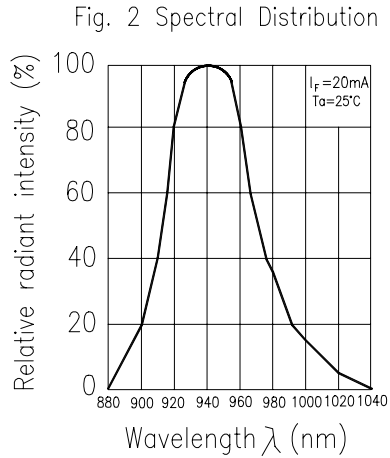
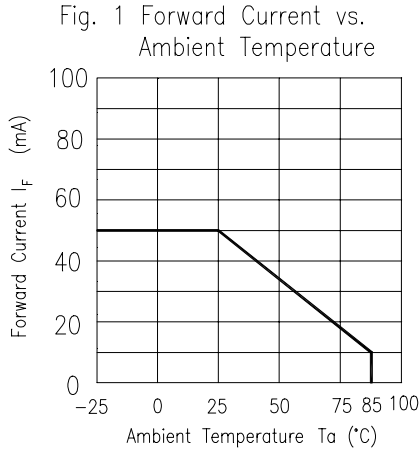


Fig. 4 Forward Current vs. Forward Voltage

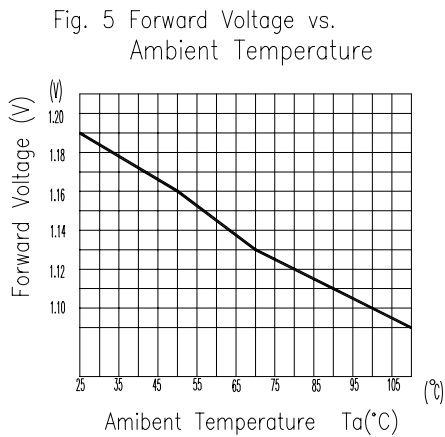
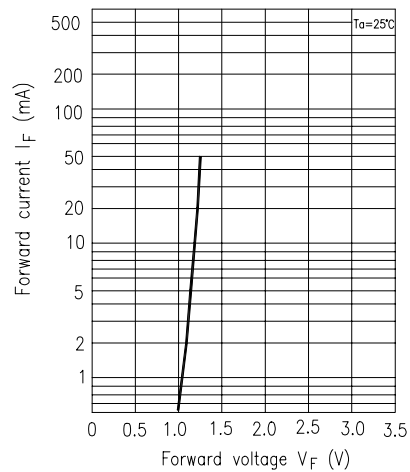
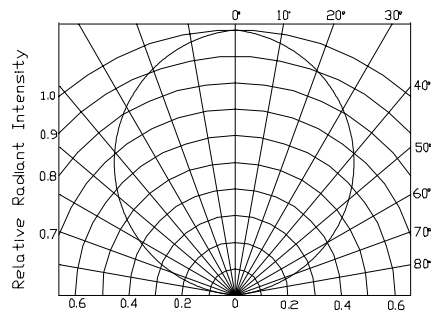


Fig. 6 Relative Radiant Intensity vs. Angular Displacement



**Typical Electro/Optical/Characteristics Curves for PT**

Fig.1 Collector Power Dissipation vs. Ambient Temperature

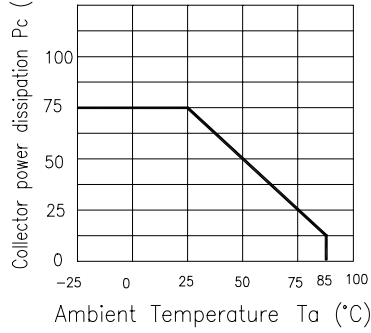


Fig.2 Collector Dark Current vs. Ambient Temperature

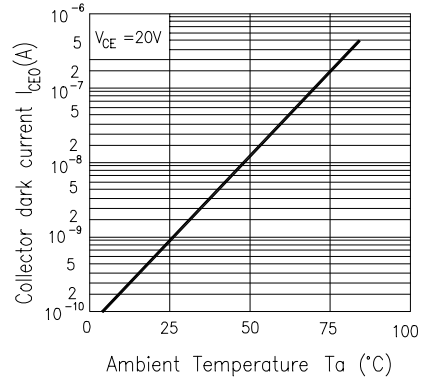


Fig. 3 Relative Collector Current vs. Ambient Temperature

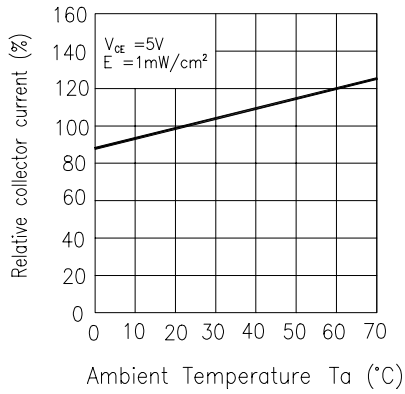


Fig.4 Collector Current vs. Irradiance

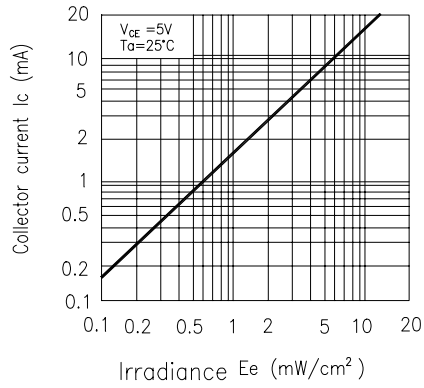


Fig.5 Spectral Sensitivity

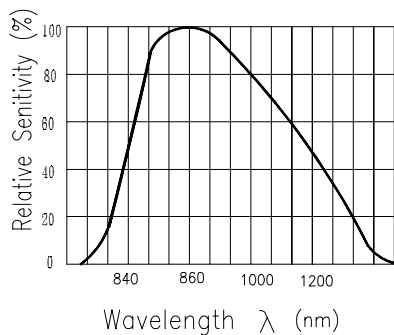
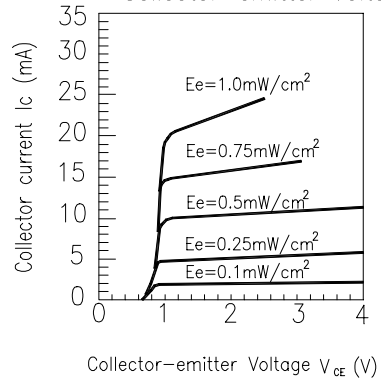


Fig.6 Collector Current vs. Collector-emitter Voltage



**Typical Electrical/Optical/Characteristics Curves For ITR**

Fig.1 Relative Collector Current vs. Distance between Sensor and Al Evaporation Galss

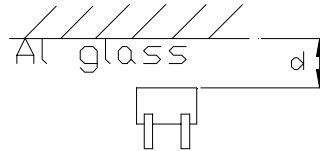
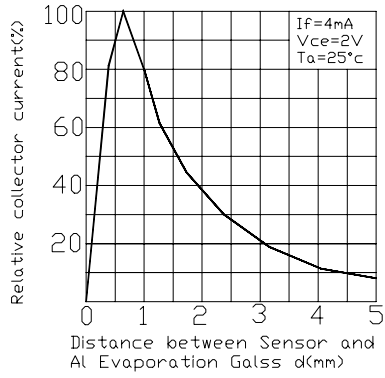


Fig.2 Relative Collector Current vs. Card Moving Distance (1)

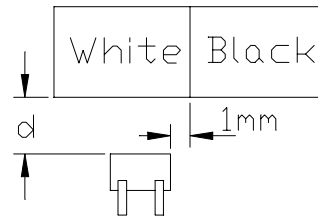
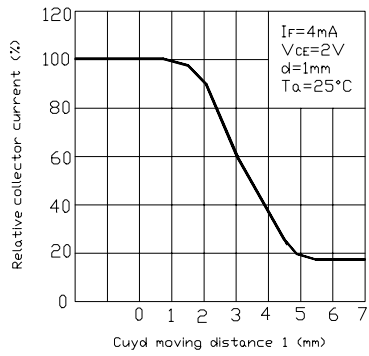
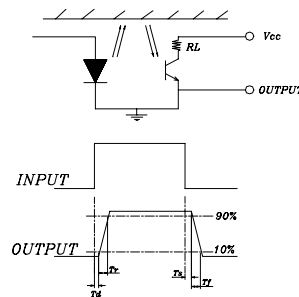
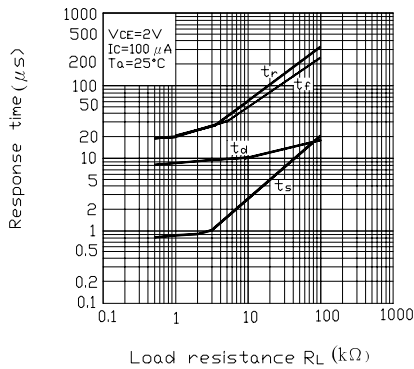
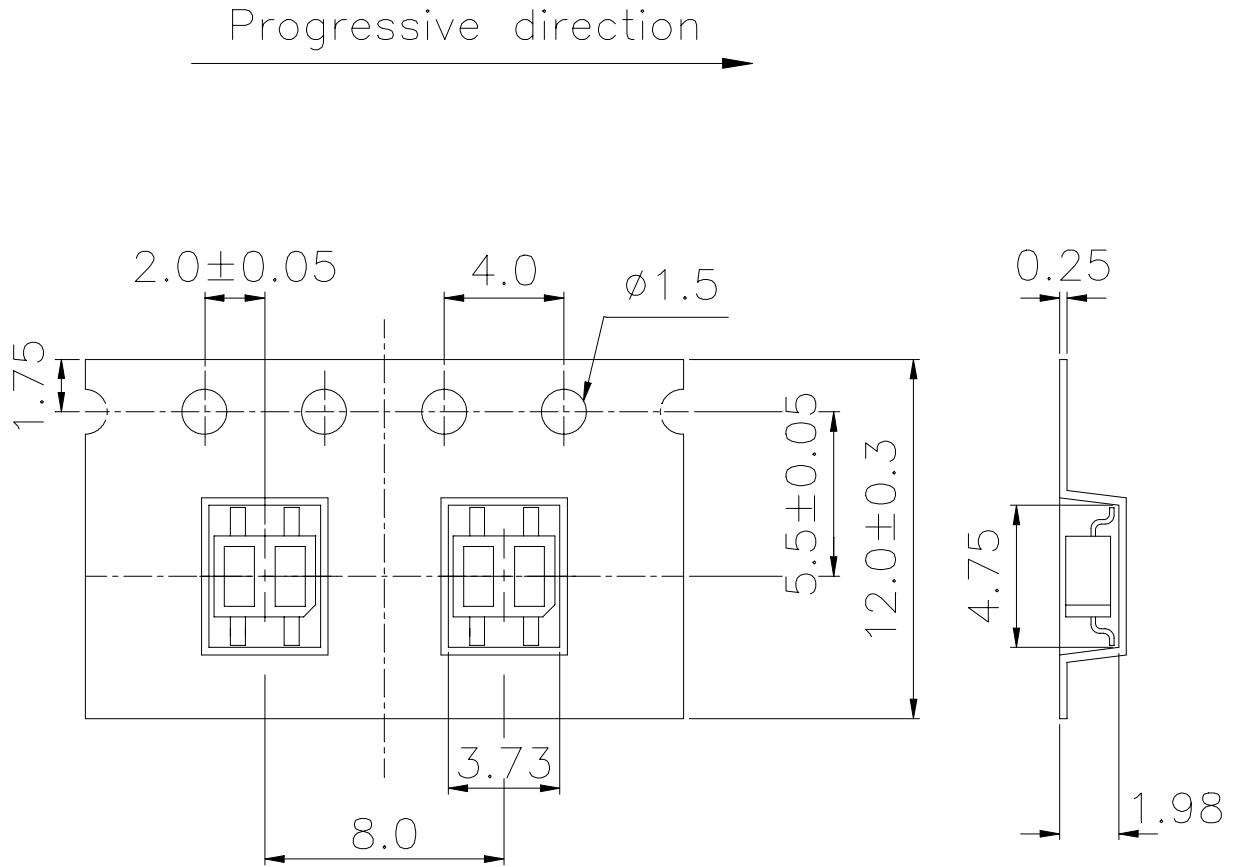


Fig.3 Response Time vs. Load Resistance



■ **Taping Dimension**



General Tolerance  $\pm 0.1$

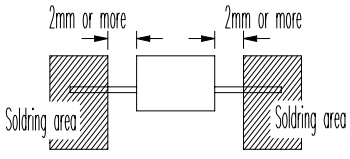
UNIT:mm

**Reliability Test Item And Condition**

The reliability of products shall be satisfied with items listed below.

Confidence level : 90%

LTPD : 10%

NO.	Item	Test Condition	Test Hours/ Cycle	Sample Size	Failure Judgement Criteria	Ac/Re
1	<p><b>Solderability</b></p> 	TEMP : 230°C ± 5 °C	5 sec	22 PCs	More than 90% of lead to be covered by soldering	0/1
2	<b>Temperature Cycle</b>	H : +85°C    30 mins $\updownarrow$ 5 min $\updownarrow$ L : -55°C    30 min	50 cycle	22 PCs	$I_R \geq U \times 2$ $E_e \leq L \times 0.8$ $V_F \geq U \times 1.2$	0/1
3	<b>Thermal Shock</b>	H : +100°C    5 min $\updownarrow$ 10 sec $\updownarrow$ L : -10°C    5 min	50 cycle	22 PCs	U :Upper specification limit L :Lower specification limit	0/1
4	<b>High Temperature Storage</b>	TEMP. : +100°C	1000 hrs	22 PCs		0/1
5	<b>Low Temperature Storage</b>	TEMP. : -55°C	1000 hrs	22 PCs		0/1
6	<b>DC Operating Life</b>	$V_{CE}=5V$ $I_F=20mA$	1000 hrs	22 PCs		0/1
7	<b>High Temperature / High Humidity</b>	85°C / 85% R.H.	1000 hrs	22 PCs		0/1