

### 1. Features

- Current transfer ratio(CTR : MIN. 50% at  $I_E = 5mA$   $V_{CE} = 5V$   $T_a=25^{\circ}C$ )
- High input -output isolation voltage ( $V_{ISO}=3.750V_{rms}$ )

$$\beta(\text{DC}) \geq 800$$



### 2. Applications

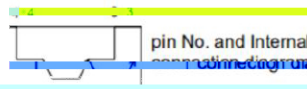
- Photocopier with IR LED, FAX, IR scanner
- Barcode scanner

### 3. DESCRIPTION

The OR-357 series device consists of an infrared led, photo transistor detector.

They are electrically coupled to provide amplification.

- It is used in the following applications



### 3. Advantages

- Hybrid's that require in get use with density mounting.
- Simple construction
- System appearance, measuring instruments

### 4. Absolute maximum ratings: Maximum Terminal Temperature: 255°C

Forward Current	$I_F$	70	mA
Storage Temperature	$T$	255	°C
Reverse Voltage	$V_R$	0	V
Forward Power	$P_F$	70	mW
Operating and storage voltage	$V_{REG}$	80	V
Reverse Current	$I_R$	1	μA
Consume Power	$P_c$	150	mW
Forward Voltage	$V_{F}$	2.0	V
Reverse Voltage	$V_{R}$	3.0	V
Wavelength	$\lambda$	940	nm
Operating Current	$I_{OP}$	500	μA
Operating Voltage	$V_{OP}$	5.0	V



- \*1. AC Test, 1 minute, humidity = 40~60%  
Insulation test method as below:  
(1) Short circuit both terminals of photo coupler.  
(2) No Current when testing insulation voltage.  
(3) Adding sine wave voltage when testing.
- \*2. soldering time is 10 seconds.

### 5. Opto-electronic Characteristics

	Parameter	Symbol	Min	Typ.*	Max	Unit	Condition
Input	Forward Voltage	$V_F$	---	1.2	1.4	V	$I_F=20mA$
	Reverse Current	$I_R$	---	---	5	$\mu A$	$V_R=5V$
	Collector capacitance	$C_t$	---	30	250	pF	$V=0, f=1KHz$
Characteristics	Collector to emitter Current	$I_{CEO}$	---	---	100	mA	$V_{CE}=2V, V_F=0.7V, I_F=0mA$
	Collector to emitter Voltage	$V_{CE(sat)}$	0	---	---	V	$I_C=0.1mA, I_F=0mA$
	Collector to emitter Voltage	$V_{CE(sat)}$	---	---	---	V	$I_E=0.1mA, I_F=0mA$
	Collector Current	$I_C$	---	---	50	mA	Collector Current
	Collector to emitter Voltage	$V_{CE(sat)}$	---	---	---	V	$I_C=1mA$
Characteristics	Insulation impedance	$R_{iso}$	$5 \times 10^9$	$1 \times 10^{11}$	---	$\Omega$	$D=500V, 40\sim60\%R.H.$
	Floating capacitance	$C$	---	---	1	pF	$V=0, f=1MHz$
Characteristics	Turn on time	$t_r$	---	4	18	$\mu s$	$V_{CC}=2V, I_C=2mA, R_L=100\Omega$
	Turn off time	$t_f$	---	3	18	$\mu s$	$R_L=100\Omega$

