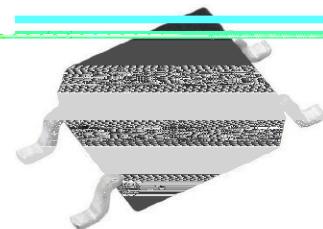


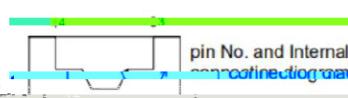
1. Features

- Current transfer ratio(CTR : MIN. 50% at $I_F = 5mA$, $V_{CE} = 5V$, $T_a=25^\circ C$)
- High input -output isolation voltage ($V_{iso}=3,750V_{rms}$)
- High collector-emitter voltage ($V_{CEO} = 80V$)
- $\Delta V_{CE} < 10mV$
- $\Delta I_C < 10\mu A$
- In compliance with RoHS, REACH standards
- WEEE Class



2. APPLICATIONS

- The OR-357 series device consists of an infrared bidirectional transistor. These devices are designed for high speed optoisolators.
- Pin Out of OR-357 is as:



3. Application IC

- Industrial controls
- Consumer controllers
- System, appliance, measuring instruments

4. MAX & RATED VALUE (Value Tempel Temperature)

| | Forward Current | I_F | mA | |
|-------------------------------|-----------------|--------------|----|------------|
| Max | I_{Fmax} | 50 | | |
| Reverse Voltage | V_R | 100 | | |
| Consume Power | P | 70 | | mW |
| Collector and emitter voltage | V_{CE} | 80 | | |
| Collector and emitter voltage | V_{CE} | 70 | | |
| Collector current | I_C | 50 | | |
| Consume Power | P_C | 150 | | mW |
| Total Consume Power | P_{tot} | 200 | | mW |
| *1 Insulation Voltage | V_{iso} | 3750 | | V_{rms} |
| Working Temperature | T_{opr} | -55 to + 110 | | |
| Deposit Temperature | T_{stg} | -55 to + 125 | | $^\circ C$ |
| *2 Soldering Temperature | T_{sld} | 260 | | |



*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 | μA | V _R =5V |
| | Collector capacitance | C _t | --- | 30 | 250 | pF | V=0, f=1KHz |
| | Collector to emitter Current | I _{CEO} | --- | --- | 100 | nA | V _{CE} =20V, |
| Output | and Emitter ion Voltage | BV _{CEO} | 80 | --- | --- | V | I _c =0.1mA, I _F =0mA |
| | nd Collector ion Voltage | BV _{CEO} | 7 | --- | --- | V | I _E =0.1mA, I _F =0mA |
| | Output or | #1 Direct conversion ratio | | | | 100 | 1:50 |
| | Output ation | I _{OA} | --- | --- | --- | --- | I _c = 1mA |
| Transforming Characteristics | Insulation Impedance | R _{iso} | 5×10 ¹⁰ | 1×10 ¹¹ | --- | Ω | DC500V 40~60%R.H. |
| | Floating Capacitance | C _f | --- | 0.6 | 1 | pF | V=0, f=1MHz |
| | represented values | I _c | 1 | 4 | 10 | μS | V _{cc} =2V, I _c =2mA, RL=100Ω |
| | represented values | I _c | 3 | 4 | 12 | μS | |



6 Rank table of current transfer ratio CTR (tolerance: ±3%)

Graph showing current density J versus electric field E for two different temperatures. The x-axis is labeled "E" and ranges from 0 to 1000. The y-axis is labeled "J" and ranges from 0 to 100. Two curves are shown: one for $T=25^{\circ}\text{C}$ (higher current) and one for $T=100^{\circ}\text{C}$ (lower current). Both curves show a linear increase in current with increasing electric field.

User interaction

Part Number

CH-337X-W112

nicer

- **CT** Rakkat, U.S. Comptroller
• **CT** and the Office of TFAU

| Description | | |
|--|--|--------------------|
| Mount lead length (mm) + Solder option | | Utilities per reel |
| Surf | Surface Mount lead length (mm) + Solder option | Utilities per reel |
| Tray | 5 lead length (mm) + 3 (0.05 mm) offset | Utilities per reel |