



: _____-357-() _____
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一级代理商：

深圳市...电子有限公司

地址：...西乡大道302号金源商务大厦B座三楼

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1. Features

- (1) Current transfer ratio (CTR : MIN. 50% at $I_F = 5\text{mA}$, $V_{CE} = 5\text{V}$, $T_a = 25^\circ\text{C}$)
- (2) High input isolation voltage ($V_{ISO} = 3,750\text{V}_{rms}$)
- (3) High collector-emitter voltage ($V_{CEO} = 80\text{V}$)
- (4) SOP-4 package
- (5) Operating Temperature -55°C to 125°C
- (6) ESD protection HBM 8000V/MM 2000V
- (7) Safe approval
 - UL approved (No. E323844)
 - VDE approved (No. 40029733)
 - CQC approved (No. CQC19001231256)
- (8) In compliance with RoHS, REACH standard
- (9) MSL Class I



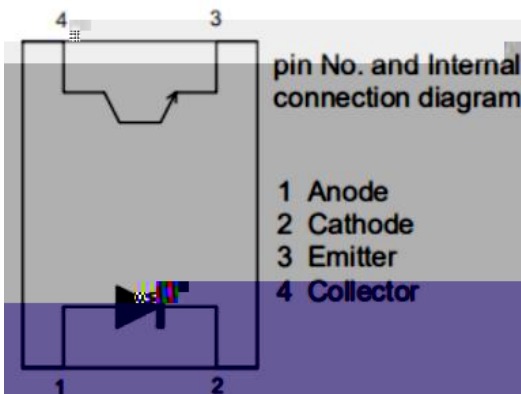
2. Instructions

- OR-357-()
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- OR-357-() 2.54

3. Application Range

- (1)
- (2)
- (3)

4. Functional Diagram



5. Maximum Absolute Rated Value (Normal Temperature=25°C)

| Parameter | Symbol | Rated Value | Unit |
|-----------|--------|-------------|------|
| | | 50 | |
| | | 125 | °C |
| | | 6 | |
| | | 70 | |
| | | 80 | |
| | | 7 | |
| | | 50 | |
| | | 150 | |
| | | 200 | |
| *1 | | 3750 | |
| | | -55 + 125 | °C |
| | + | -55 + 150 | |
| *2 | | 260 | |

*1. $\frac{1}{10} \times 3750 = 375$ (40 60%)

- (1)
- (2)
- (3)

*2. $\frac{1}{10} \times 260 = 26$

6. Opto-electronic Characteristics

| Parameter | Symbol | Min | Typ.* | Max | Unit | Condition |
|-----------|--------|-------------------|-------------------|-----|------|--|
| | | --- | 1.2 | 1.4 | | $\lambda = 20$ |
| | | --- | --- | 5 | | $\lambda = 5$ |
| | | --- | 30 | 250 | | $\lambda = 0, \lambda = 1$ |
| | | --- | --- | 100 | | $\lambda = 20, \lambda = 0$ |
| | | 80 | --- | --- | | $\lambda = 0.1, \lambda = 0$ |
| | | 7 | --- | --- | | $\lambda = 0.1, \lambda = 0$ |
| *1. | | 50 | --- | 600 | % | $\lambda = 5, \lambda = 5$ |
| | | 2.5 | --- | 30 | | |
| | () | --- | --- | 0.2 | | $\lambda = 20, \lambda = 1$ |
| | | $5 \cdot 10^{10}$ | $1 \cdot 10^{11}$ | --- | | $\lambda = 500, \lambda = 40, \lambda = 60\%, \dots$ |
| | | --- | 0.6 | 1 | | $\lambda = 0, \lambda = 1$ |
| | | --- | 2.9 | 10 | | $\lambda = 2, \lambda = 2, \lambda = 100$ |
| | + | --- | 4.5 | 10 | | |

● = / 100%

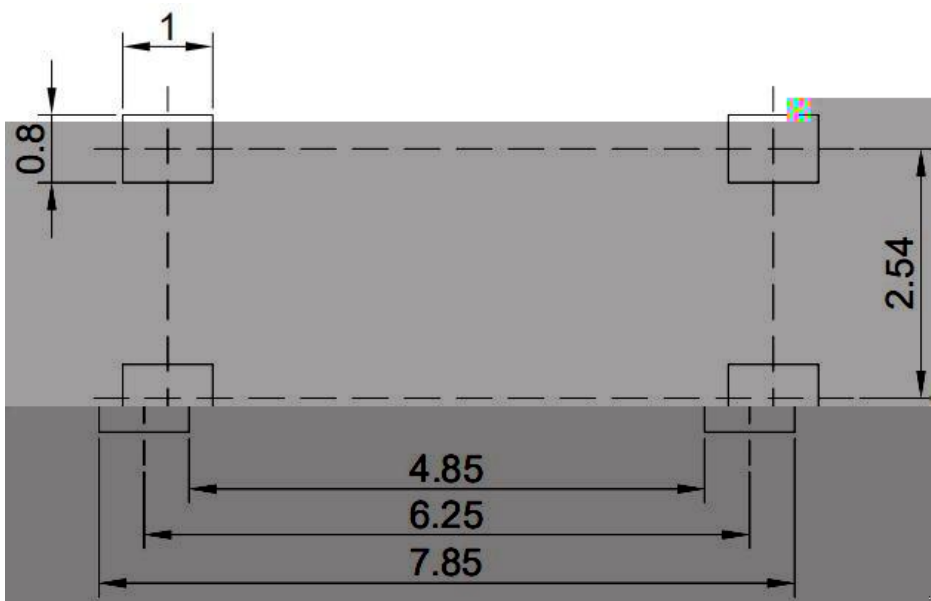


9. Naming Rule

1. Manufacturer : O
2. Part Number : 35
3. Rank Code
4. Year Code '2020' and so on.
5. Week Code 01 mean the first week, 02 mean the second week and so on.
6. VDE Code

10. Outer Dimension

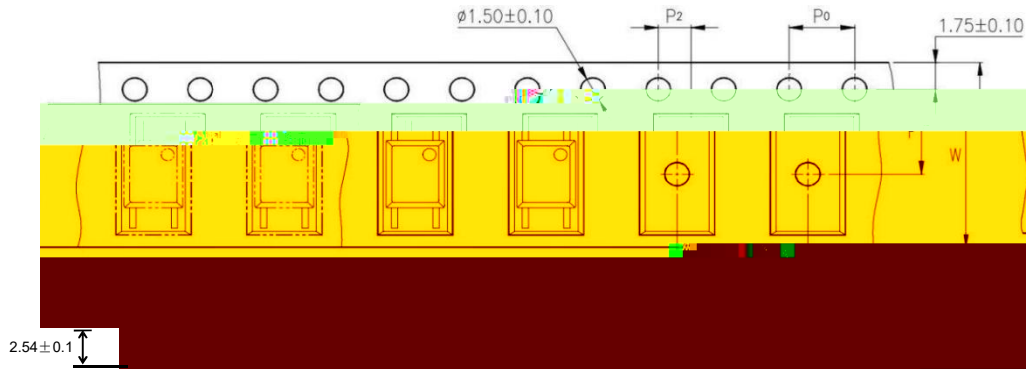
11. Recommended Foot Print Patterns (Mount Pad)



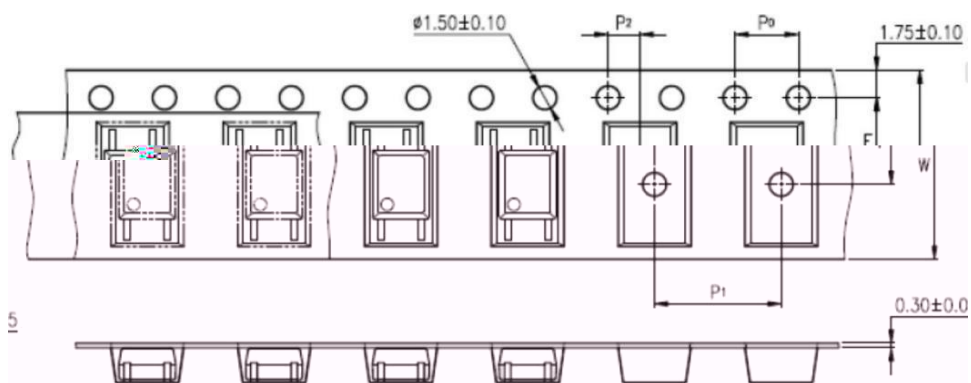
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12. Taping Dimensions

(1) OR-357-TP



(2) OR-357-TP1



| Description | S mbol | Dimension in mm(inch) |
|-------------|--------|-----------------------|
| | | 12 0.3 (0.472) |
| | 0 | 4 0.1 (0.157) |
| + | 5.5 | 0.1 (0.217) |
| | 2 | 2 0.1 (0.079) |
| + | 1 | 8 0.1 (0.315) |

| Package T pe | TP/TP1 |
|--------------|--------|
| () | 3000 |



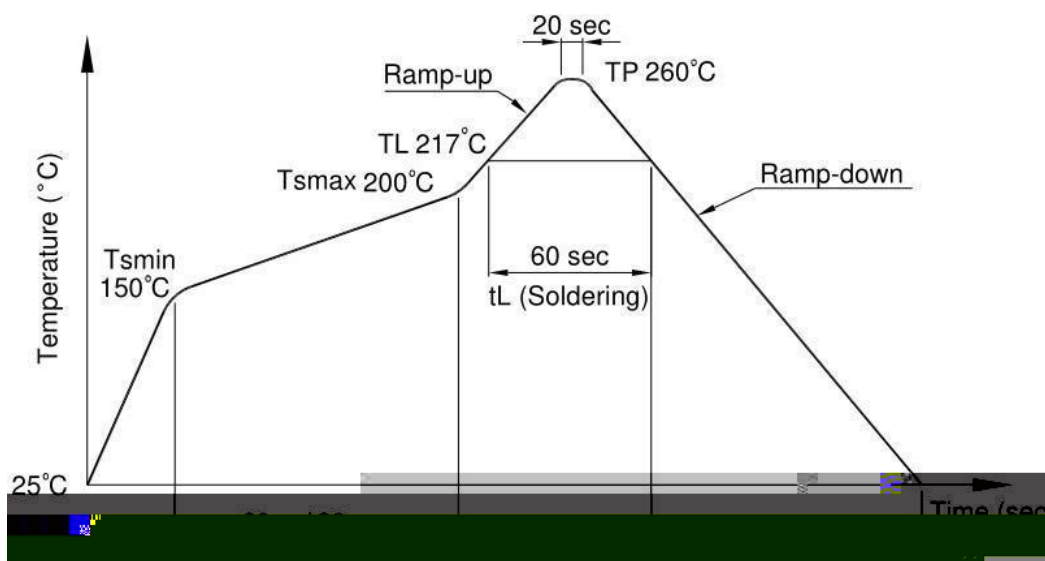
14. Reliability Test

| NO. | ITEMS | Reliability Testing | | | | |
|-----|----------------------------|---------------------|--|---------------|-----------------------|-------------|
| | | QTY. (Pcs) | Condition | Process | Device | Standard |
| 1 | RSH 耐焊接热 | 22 | 260±5℃ | 10 /3 次 | 锡炉 | JESD22-A106 |
| 2 | HTSL 高温存储 | 77 | 125℃ | 168 hr | 高温烤箱 测试仪 | JESD22-A103 |
| | | | | 500 hr | | |
| | | | | 1000 hr | | |
| 3 | LTSL 低温存储 | 77 | -55℃ | 168 hr | 低温箱 测试仪 | JESD22-A119 |
| | | | | 500 hr | | |
| | | | | 1000 hr | | |
| 4 | TC 温度循环 | 77 | H:125℃ 15min ∫ 5min L:-55℃ 15min | 300 cycles | 冷热冲击机 | JESD22-A104 |
| 5 | TS 温度冲击 | 77 | H:100℃ 5min ∫ 15 L:-40℃ 5min | 300 cycles | 冷热冲击机 | JESD22-A106 |
| 6 | HTOL 高温操作 | 77 | 110 C IF=10mA Vce=5V | 168 hr | 高温烤箱 测试仪、老 化电路板 | JESD22-A108 |
| | | | | 500 hr | | |
| | | | | 1000 hr | | |
| 7 | ESD-HBM 人体模式 | 22 | ≥8KV 1Cycles | 1次 | ESD静电测 试仪 | JESD22-A114 |
| 8 | SD 可焊性 | 22 | Pb-free 245±5℃ | 5S/1次 | 锡炉 | JESD22-B102 |
| 9 | HTRB 高温反向偏压 | 77 | HTRB @125℃ Vce=80 | 168 hr | 高温烤箱 , 测试仪 | JESD22-A103 |
| | | | | 500 hr | | |
| | | | | 1000 hr | | |
| 10 | H3TRB 温湿度反向偏 压, 寿命试验 | 77 | H3TRB 85℃,85%RH Vce=80 | 168 hr | 恒温恒湿 机, 测试仪 | JESD22-A101 |
| | | | | 500 hr | | |
| | | | | 1000 hr | | |
| 11 | Autoclave 压力锅 | 77 | Ta=121 ℃,100%RH,2a m | 96hr | 压力锅 | JESD22-A102 |

15. Temperature Profile Of Soldering

(1) (- -020 +)

| Profile item | Conditions |
|--------------|------------|
| - () | 150 |
| - () | 200 |
| - () () | 90 30 |
| - () | 217 |
| - () | 60 |
| | 260 |
| | 20 |
| - | 3 / |
| - | 3 6 / |
| | ≤3 |



16. Characteristics Curves

Fig.1 Forward current vs Ambient temperature

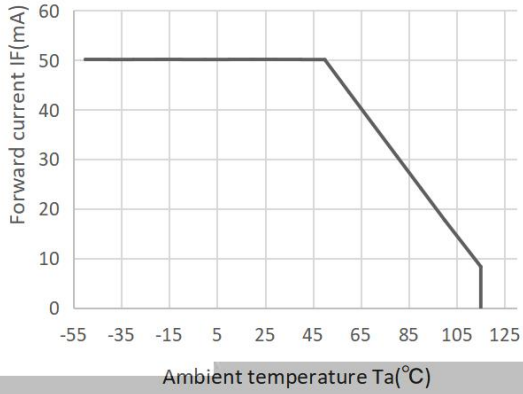


Fig.2 Collector Power Dissipation vs. Ambient temperature

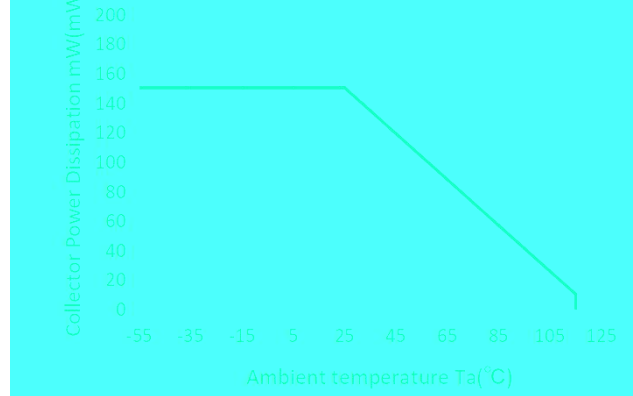


Fig.3 Collector-emitter Saturation Voltage vs. Forward Current

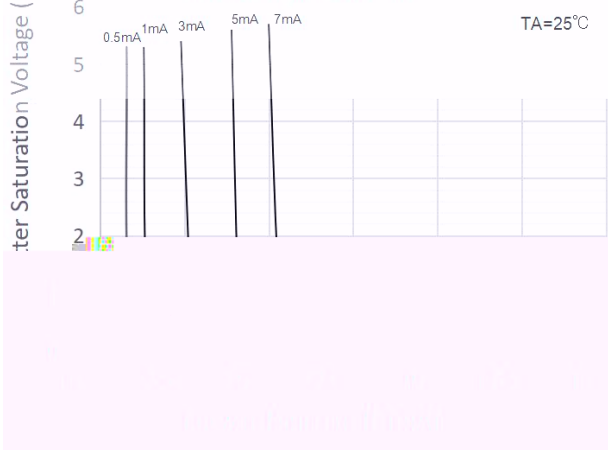


Fig.4 Forward Current vs. Forward Voltage

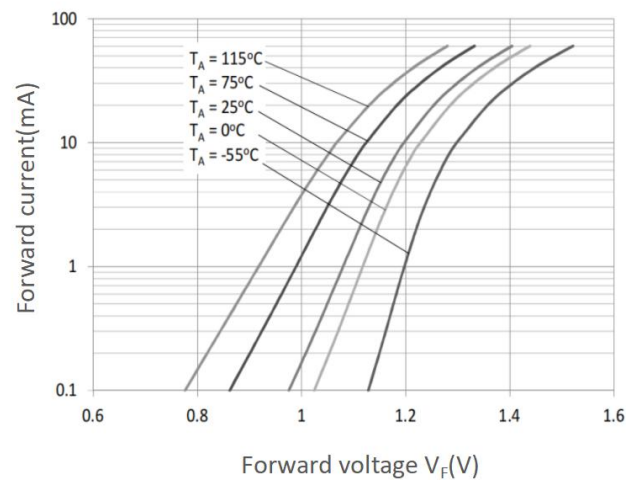


Fig.5 Forward Current vs. Current Transfer Ratio

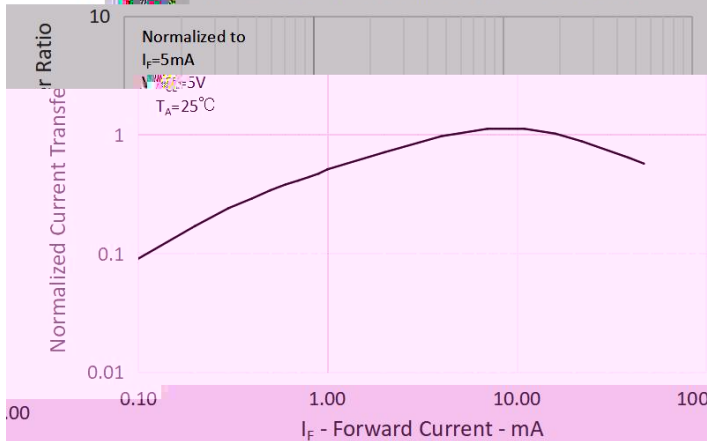


Fig.6 Collector Current vs. Collector-emitter Voltage

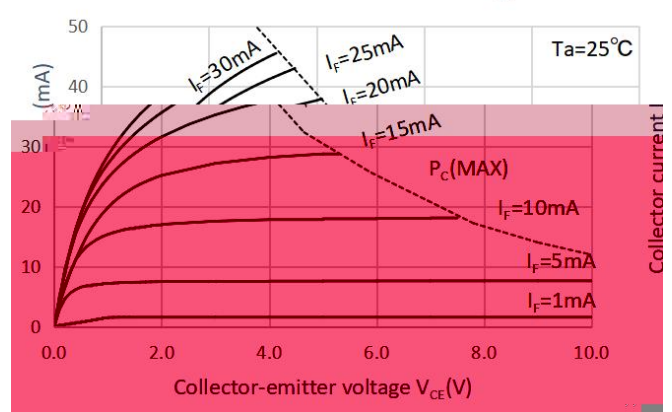


Fig.7 Relative Current Transfer Ratio vs. Ambient Temperature

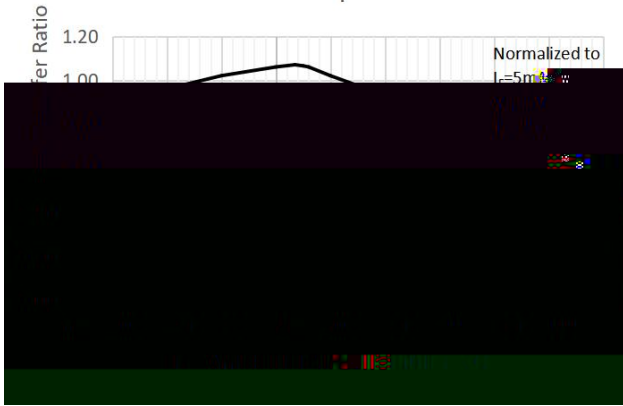


Fig.8 Collector-emitter Saturation Voltage vs. Ambient Temperature

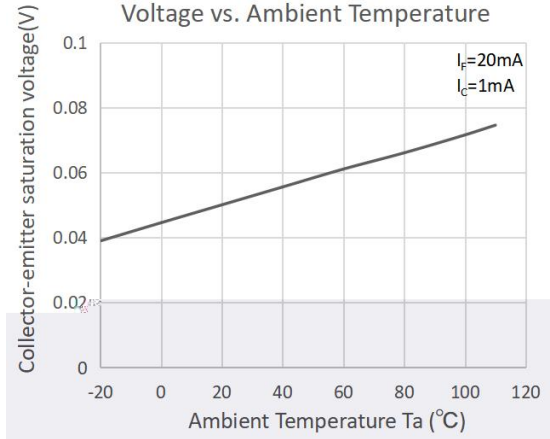


Fig.9 Collector Dark Current vs. Ambient Temperature

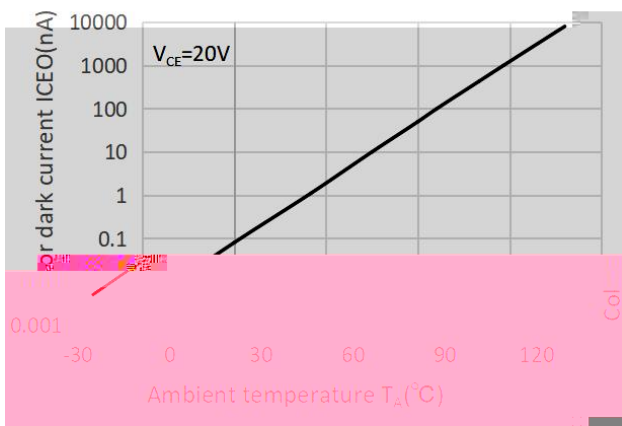


Fig.10 Response Time vs. Load Resistance

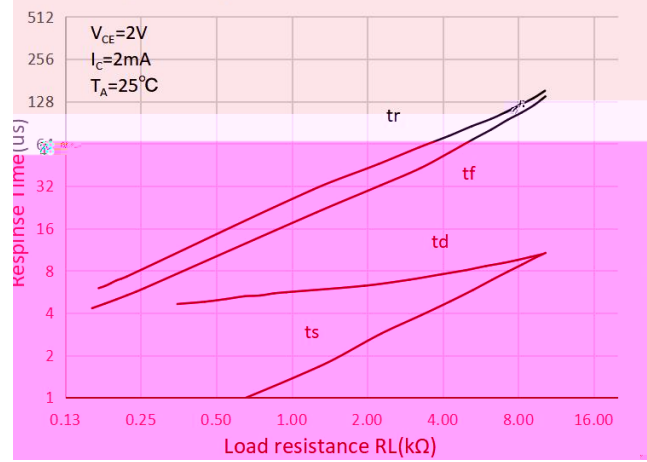
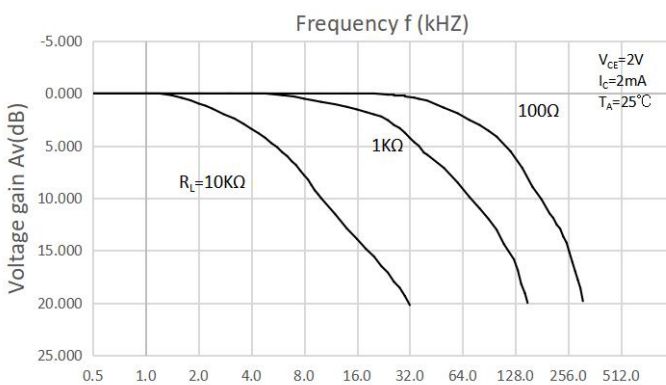
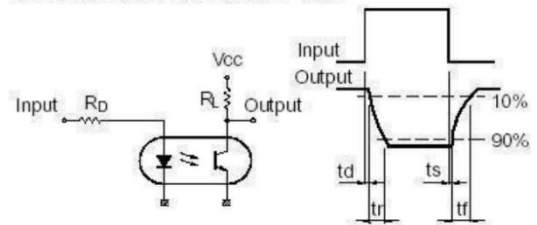


Fig.11 Frequency Response



Test Circuit for Response Time



Test Circuit for Frequency Response

