

BT137

双向可控硅
TRIAC版本号
201603-A

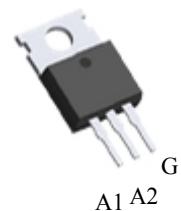
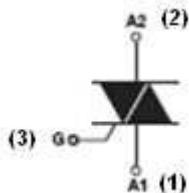
产品概述 GENERAL DESCRIPTION

BT137 双向可控硅采用穿通隔离台面结构，复合玻璃钝化PN结表面保护工艺技术，dv/dt高，可靠性高，适用于控温、调光、马达控制。

BT137 Triacs is fabricated using separation diffusion processes ,the junction termination areas are passivated with glass. Thanks to highly dv/dt and reliability,the Triacs series is suitable for domestic lighting ,heating and motor speed controllers.

主要参数 MAIN CHARACTERISTICS

| 参数 Parameter | 数值 Value | 单位 Unit |
|----------------------------------|----------|---------|
| I _T (RMS) | 8 | A |
| V _{DRM/V_{RRM}} | 600&800 | V |
| I _{GT(HI)} | ≤10 | mA |



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产品特性 FEATURES

- dv/dt高
- 通态压降低
- Rohs环保产品
- Highly dv/dt
- Low on-state voltage
- Rohs Products

应用领域 APPLICATIONS

主要应用于调光、控温、马达控制。

domestic lighting ,heating and motor speed controllers.

极限值(除非另有规定, $T_j=25^\circ\text{C}$) ABSOLUTE RATINGS

(Tj=25°C,unless otherwise specified)

| 符号 Symbol | 参数 Parameter | 数值 Value | 单位 Unit |
|---------------------|--|-------------|------------------------|
| $I_{T(\text{RMS})}$ | RMS 通态电流 RMS on-state current (full sine wave) | 8 | A |
| I_{TSM} | 通态峰值浪涌电流 Non repetitive surge peak on-state current | 60 | A |
| I^2t | I^2t 耗散值 I^2t value for fusino | 21 | A^2s |
| di/dt | 通态电流上升值 Critical rate of rise of on-state current | 50 | $\text{A}/\mu\text{s}$ |
| I_{GM} | 门极峰值电流 Peak gate current | 2 | A |
| $P_{G(\text{AV})}$ | 平均门极耗散功率 Average gate power dissipation | 0.5 | W |
| T_{stg} | 贮存结温范围 Storage junction temperature range | -40~+150 | °C |
| T_j | 工作结温范围 Operating junction temperature range | -40~+125 | °C |

电参数(除非另有规定, $T_j=25^\circ\text{C}$) ELECTRICAL CHARACTERISTICS

(Tj=25°C,unless otherwise specified)

| 参数 Parameter | 符号 Symbol | 规范值 Value | | 单位 Unit | 测试条件 Test Conditions |
|---|--------------|--------------------------|-------------|---------------|--|
| | | D | E | | |
| 触发电流 Gate trigger current | I_{GT} | $I \sim III$ ≤ 5 | ≤ 10 | mA | $V_D=12\text{V}, I_T=0.1\text{A}$ |
| | | IV ≤ 10 | ≤ 25 | | |
| 触发电压 Gate trigger voltage | V_{GT} | I ~ IV | ≤ 1.5 | | V $V_D=12\text{V}, I_T=0.1\text{A}$ |
| 维持电流 Holding current | | I_H | ≤ 20 | ≤ 30 | mA $V_D=12\text{V}, I_T=0.1\text{A}$ |
| 擎住电流 Latching current | | I_L | ≤ 30 | ≤ 35 | mA $V_D=12\text{V}, I_T=0.1\text{A}$ |
| 电压上升率 Rise of off-state voltage | | dv/dt | ≥ 20 | ≥ 50 | V/ μs $V_D=67\%V_{DRM}$ |
| 通态压降 Peak on-state voltage | | V_{TM} | ≤ 1.65 | | V $I_T=10\text{A}$ |
| 断态漏电流 Peak repetitive forward blocking current | I_{DRM} | ≤ 10 | | μA | $V_{RRM}=V_{DRM}, T_j = 25^\circ\text{C}$ |
| | | ≤ 0.5 | | mA | $V_{RRM}=V_{DRM}, T_j = 125^\circ\text{C}$ |

热特性 THERMAL RESISTANCES

| 符号 Symbol | 参数 Parameter | 数值 Value | 单位 Unit |
|---------------|----------------------|----------|---------|
| $R_{th(j-c)}$ | Junction to case(AC) | 1.6 | °C/W |
| $R_{th(j-a)}$ | Junction to ambient | 60 | °C/W |

特征曲线 ELECTRICAL CHARACTERISTICS (CURVES)

图1 最大耗散功率与RMS通态电流关系
Fig.1. Maximum Power Dissipation Versus
on-state current

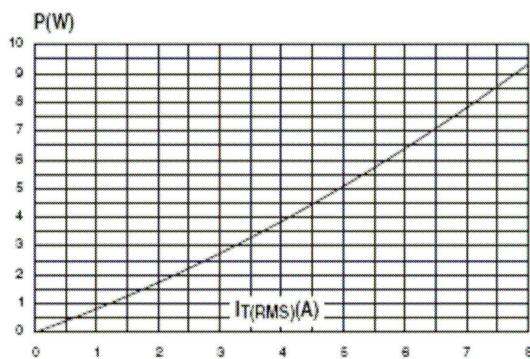


图3 通态特性
Fig.3.On-State Characteristics

图2 RMS通态电流与T_c温度关系
Fig.2. RMS On-state Current Versus T_L

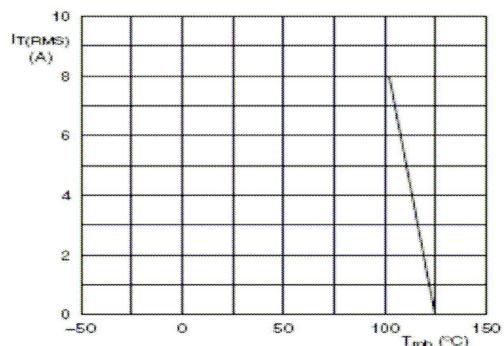


图4 通态浪涌峰值电流与周期数关系
Fig.4.Surge Peak On-state Current Versus Number Cycles

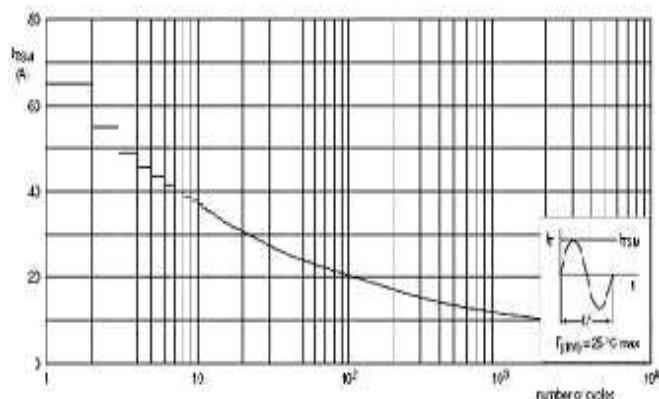
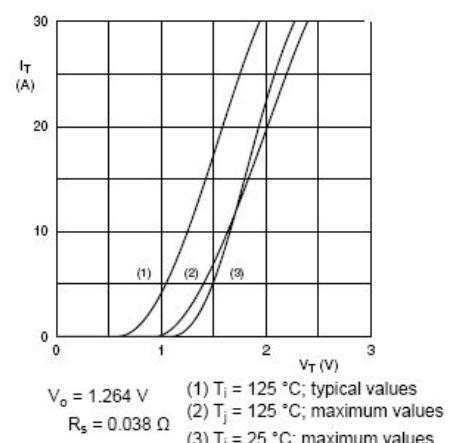
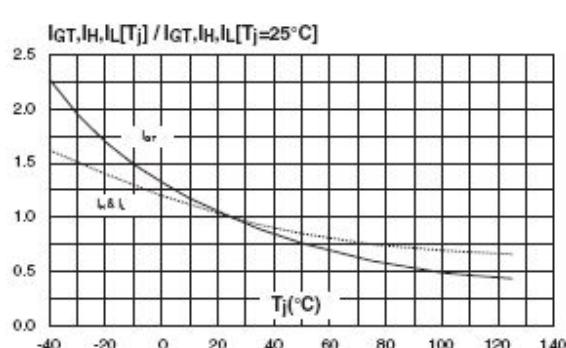
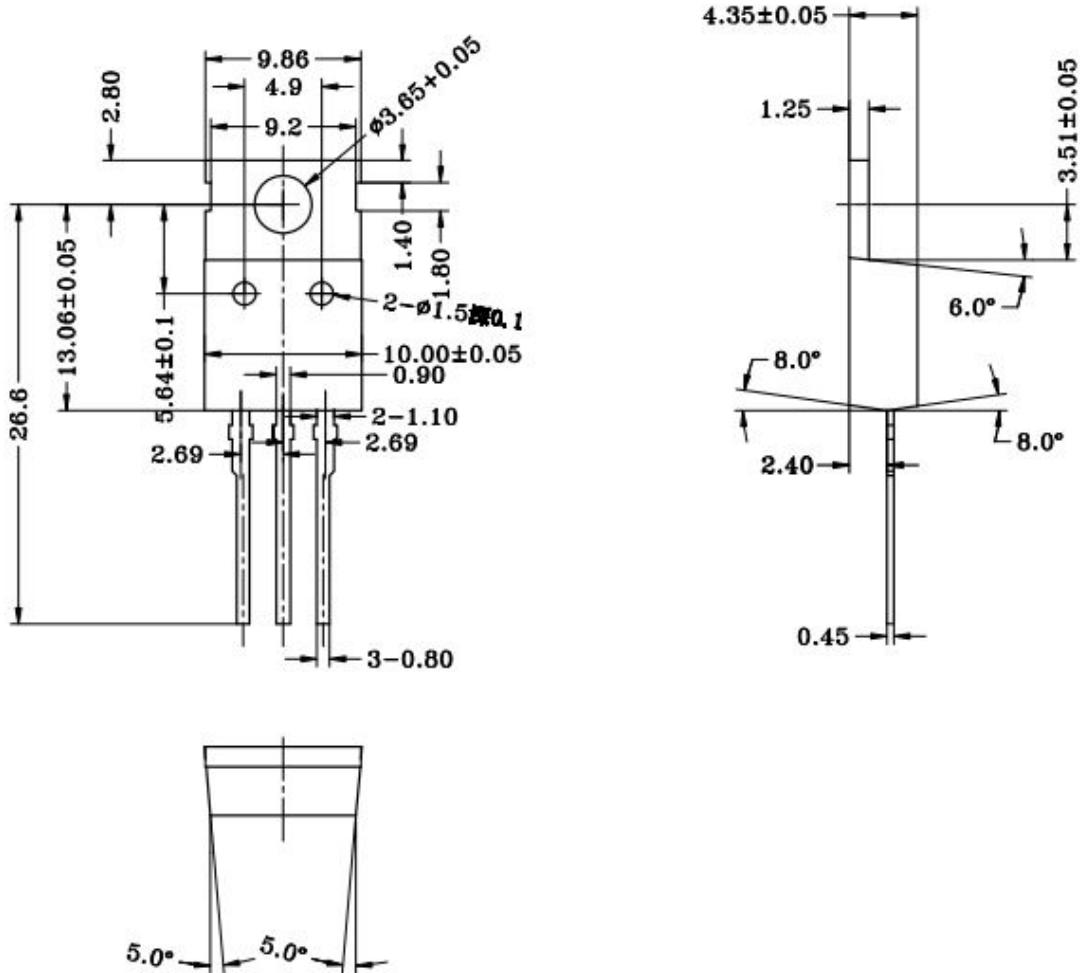


图5 IGT、IH、IL相对值（相对于25℃）与结温关系
Fig.5.Relative Variation Of Gate Trigger Current
, Holding Current And Latching Current Versus Junction Temperature (Typical Value)



封装尺寸 PACKAGE MECHANICAL DATA

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