# BT134

双向可控硅
TRIAC

版本号
201603-A

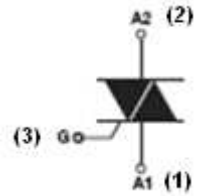
## 产品概述 GENERAL DESCRIPTION

BT134 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。

BT134 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<br>Parameter | 数值<br>Value | 单位<br>Unit |
|---|---|---|
| $I_{T(RMS)}$ | 4 | A |
| $V_{DRM}/V_{RRM}$ | 600&800 | V |
| $I_{GT(III)}$ | ≤25 | 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，Tj=25℃) ABSOLUTE RATINGS

(Tj=25℃,unless otherwise specified)

| 符号 Symbol | 参数 Parameter | | 数值 Value | 单位 Unit |
|---|---|---|---|---|
| $I_{T(RMS)}$ | RMS 通态电流<br>RMS on-state current (full sine wave) | $T_C$≤107℃ | 4 | A |
| $I_{TSM}$ | 通态峰值浪涌电流<br>Non repetitive surge peak on-state current | F=50$H_Z$ ,t=20ms | 25 | A |
| $I^2t$ | $I^2t$ 耗散值<br>$I^2t$ value for fusing | $T_P$=10ms | 3.1 | $A^2s$ |
| di/dt | 通态电流上升值<br>Critical rate of rise of on-state current | F=120$H_Z$,Tj=125℃ | 50 | A/μs |
| $I_{GM}$ | 门极峰值电流<br>Peak gate current | TP=20μs,Tj=125℃ | 2 | A |
| $P_{G(AV)}$ | 平均门极耗散功率<br>Average gate power dissipation | Tj=125℃ | 0.5 | W |
| Tstg | 贮存结温范围<br>Storage junction temperature range | | -40-+150 | ℃ |
| Tj | 工作结温范围<br>Operating junction temperature range | | -40-+125 | ℃ |

## 电参数(除非另有规定，Tj=25℃) ELECTRICAL CHARACTERISTICS

(Tj=25℃,unless otherwise specified)

| 参数 Parameter | 符号 Symbol | | 规范值 Value D | 规范值 Value E | 单位 Unit | 测试条件 Test Conditions |
|---|---|---|---|---|---|---|
| 触发电流<br>Gate trigger current | $I_{GT}$ | Ⅰ～Ⅲ | 5 | 10 | mA | $V_D$=12V,$I_T$=0.1A |
| | | Ⅳ | 10 | 25 | | |
| 触发电压<br>Gate trigger voltage | $V_{GT}$ | Ⅰ～Ⅳ | ≤1.5 | | V | $V_D$=12V, $I_T$=0.1A |
| 维持电流<br>Holding current | $I_H$ | | 10 | 20 | mA | $V_D$=12V,$I_T$=0.1A |
| 擎住电流<br>Latching current | $I_L$ | Ⅰ、Ⅲ | 10 | 15 | mA | $V_D$=12V,$I_T$=0.1A |
| | | Ⅱ、Ⅳ | 15 | 20 | | |
| 电压上升率<br>Rise of off- state voltage | dv/dt | | 5 | 50 | V/μS | $V_D$=67%$V_{DRM}$ |
| 通态压降<br>Peak on-state voltage | $V_{TM}$ | | 1.7 | | V | $I_T$=5.5A |
| 断态漏电流<br>Peak repetitive forward blocking current | $I_{DRM}$ | | 5 | | μA | $V_{RRM}$=$V_{DRM}$,Tj = 25℃ |
| | $I_{RRM}$ | | 0.8 | | mA | $V_{RRM}$=$V_{DRM}$,Tj =125℃ |

## 热特性 THERMAL RESISTANCES

| 符号 Symbol | 参数 Parameter | 数值 Value | 单位 Unit |
|---|---|---|---|
| Rth(j-c) | Junction to case(AC) | 4.1 | ℃/W |
| Rth(j-a) | Junction to ambient | 100 | ℃/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

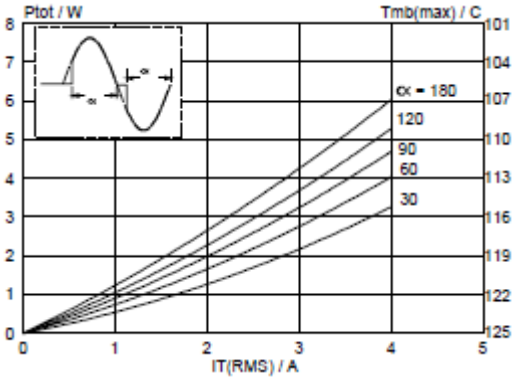



图2 RMS通态电流与Tc温度关系
Fig.2. RMS On-state Current Versus TL

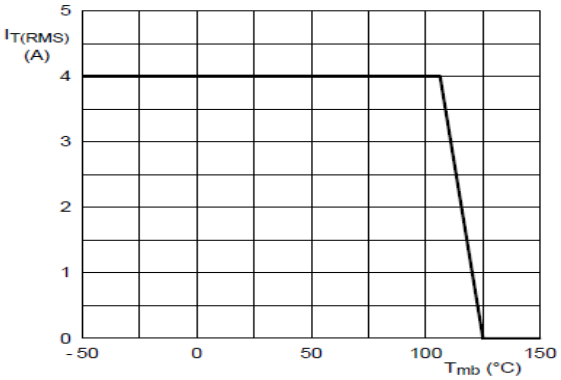



图3 通态特性
Fig.3.On-State Characteristics

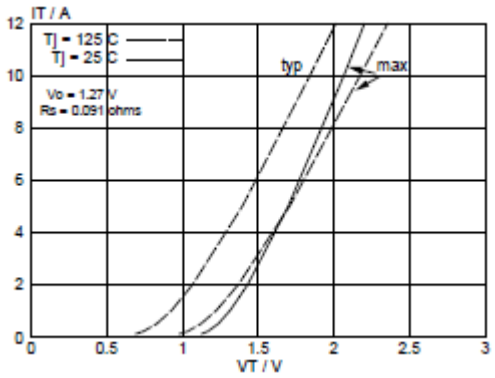



图4 通态浪涌峰值电流与周期数关系
Fig.4.Surge Peak On-state Current Versus Number Cycles

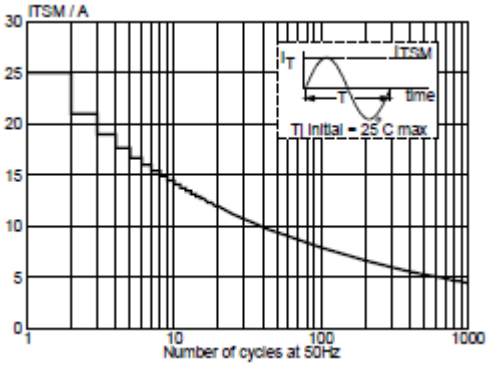
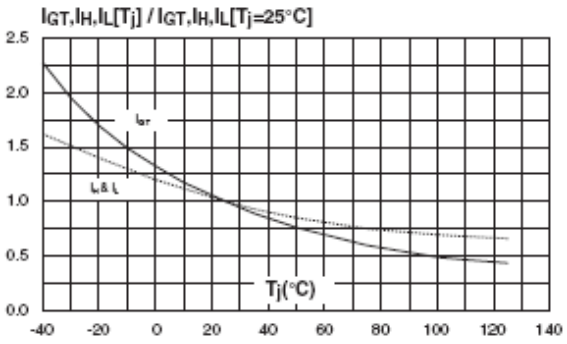



图5 IGT、IH、IL相对值（相对于25℃）与结温关系
Fig.5.Relative Variation Of Gate Trigger Current , Holding Current And Latching Current Versus Junction Temperature (Typical Value)



## 封装尺寸　PACKAGE MECHANICAL DATA

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