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| BT131-6B | | |
| | 双向可控硅 TRIAC | 版本号 201603-A |

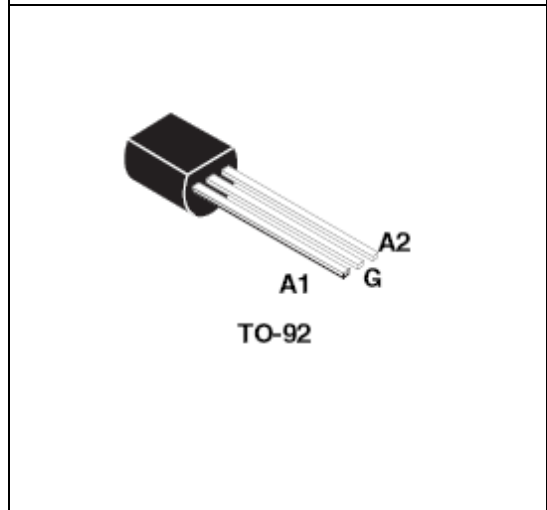
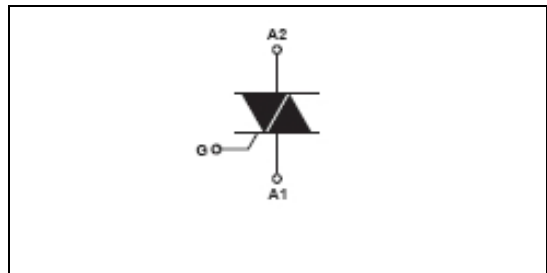
产品概述 GENERAL DESCRIPTION

BT131-6B 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。

BT131-6B 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 |
|-------------------|-------------|------------|
| $I_{T(RMS)}$ | 1 | A |
| V_{DRM}/V_{RRM} | 800 | V |
| $I_{GT(III)}$ | ≤ 10 | mA |



产品特性

FEATURES

- | | |
|------------|------------------------|
| ● dv/dt高 | ● Highly dv/dt |
| ● 通态压降低 | ● Low on-state voltage |
| ● Rohs环保产品 | ● 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°C) ABSOLUTE RATINGS

 (T_j=25°C, unless otherwise specified)

| 符号 Symbol | 参数 Parameter | | 数值 Value | 单位 Unit |
|---------------------|---|---|-------------|------------------|
| I _{T(RMS)} | RMS 通态电流 RMS on-state current (full sine wave) | T _C =90°C | 1 | A |
| I _{TSM} | 通态峰值浪涌电流 Non repetitive surge peak on-state current | F=50Hz, t=20ms | 12.5 | A |
| I ² t | I ² t 耗散值 I ² t value for fusing | T _P =10ms | 0.78 | A ² s |
| di/dt | 通态电流上升值 Critical rate of rise of on-state current | F=120Hz, T _j =125°C | 50 | A/μs |
| I _{GM} | 门极峰值电流 Peak gate current | T _P =20μs, T _j =125°C | 2 | A |
| P _{G(AV)} | 平均门极耗散功率 Average gate power dissipation | T _j =125°C | 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°C) ELECTRICAL CHARACTERISTICS

 (T_j=25°C, unless otherwise specified)

| 参数 Parameter | 符号 Symbol | | 规范值 Value | 单位 Unit | 测试条件 Test Conditions |
|---|------------------|---------|--------------|------------|---|
| 触发电流 Gate trigger current | I _{GT} | I ~ III | ≤10 | mA | V _D =12V, I _T =0.1A |
| 触发电压 Gate trigger voltage | V _{GT} | I ~ III | ≤1.5 | V | V _D =12V, I _T =0.1A |
| 维持电流 Holding current | I _H | | ≤10 | mA | V _D =12V, I _T =0.1A |
| 擎住电流 Latching current | I _L | I、III | ≤20 | mA | V _D =12V, I _T =0.1A |
| | | II | ≤25 | | |
| 电压上升率 Rise of off- state voltage | dv/dt | | ≥500 | V/μS | V _D =67% V _{DRM} |
| 通态压降 Peak on-state voltage | V _{TM} | | ≤1.5 | V | I _T =2.0A |
| 断态漏电流 Peak repetitive forward blocking current | I _{DRM} | | ≤10 | μA | V _{RRM} =V _{DRM} , T _j = 25 °C |
| | I _{RPM} | | ≤2 | mA | V _{RRM} =V _{DRM} , T _j =125 °C |

热特性 THERMAL RESISTANCES

| 符号 Symbol | 参数 Parameter | 数值 Value | 单位 Unit |
|-----------|----------------------|----------|---------|
| Rth(j-c) | Junction to case(AC) | 60 | °C/W |
| Rth(j-a) | Junction to ambient | 150 | °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

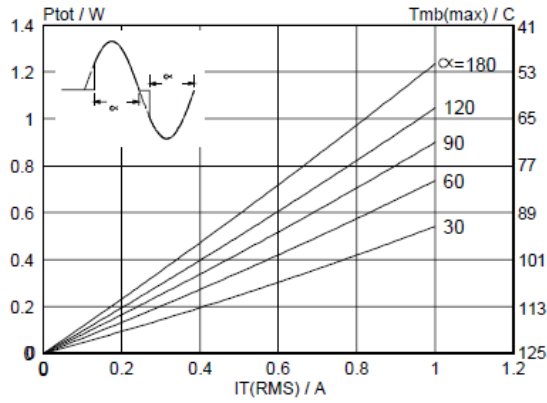


图3 通态特性
Fig.3.On-State Characteristics

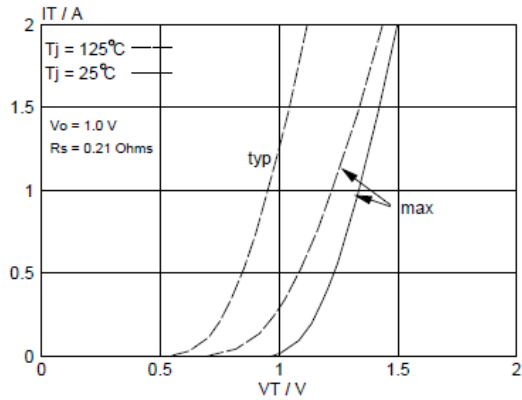


图2 RMS通态电流与Tc温度关系
Fig.2. RMS On-state Current Versus TL

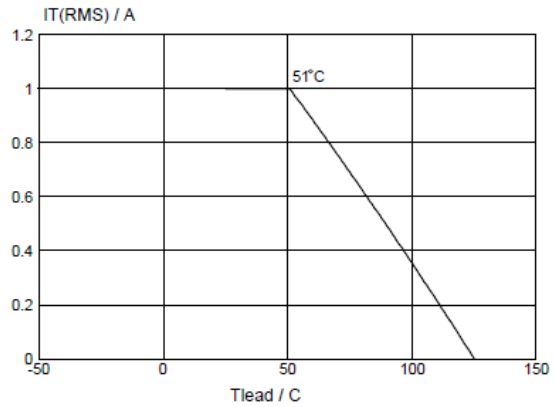


图4 通态浪涌峰值电流与周期数关系
Fig.4.Surge Peak On-state Current Versus Number Cycles

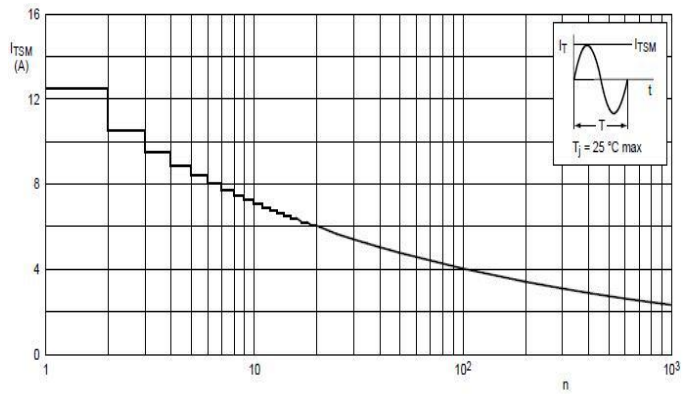
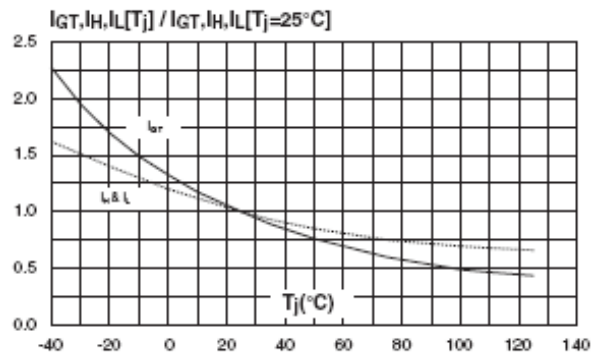
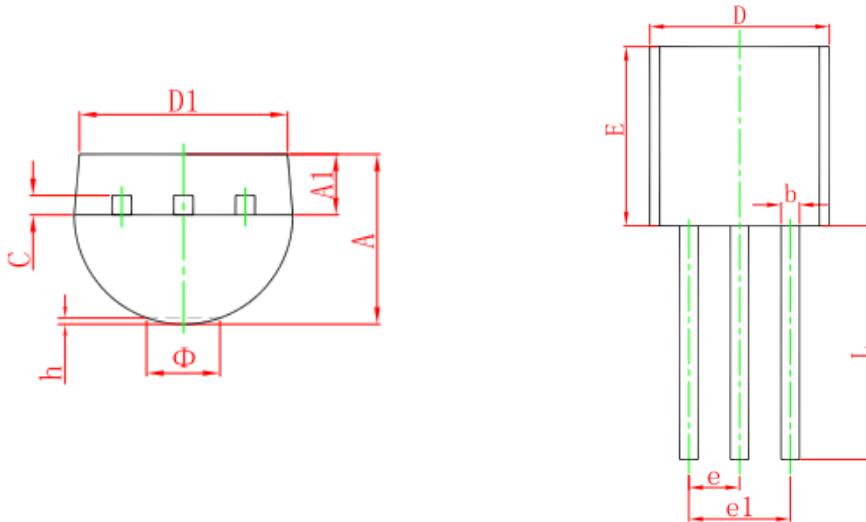


图5 I_{GT} 、 I_H 、 I_L 相对值（相对于 25°C ）与结温关系
Fig.5.Relative Variation Of Gate Trigger Current , Holding Current And Latching Current Versus Junction Temperature (Typical Value)



封装尺寸 PACKAGE MECHANICAL DATA

TO-92



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|--------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | 3.300 | 3.700 | 0.130 | 0.146 |
| A1 | 1.100 | 1.400 | 0.043 | 0.055 |
| b | 0.380 | 0.550 | 0.015 | 0.022 |
| c | 0.360 | 0.510 | 0.014 | 0.020 |
| D | 4.300 | 4.700 | 0.169 | 0.185 |
| D1 | 3.430 | | 0.135 | |
| E | 4.300 | 4.700 | 0.169 | 0.185 |
| e | 1.270 TYP. | | 0.050 TYP. | |
| e1 | 2.440 | 2.640 | 0.096 | 0.104 |
| L | 13.100 | 14.500 | 0.515 | 0.571 |
| Φ | | 1.600 | | 0.063 |
| h | 0.000 | 0.380 | 0.000 | 0.015 |

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