

器件名称

非绝缘型灵敏门极双向三端晶闸管(即：灵敏门极双向可控硅)

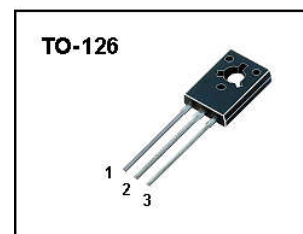
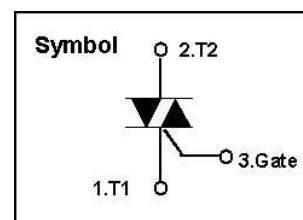
主要用途

适合于TTL、HTL、CMOS电路，主要用于小功率交流开关、风扇控制、照明控制等

极限值 ($T_a=25^{\circ}\text{C}$)

| | | | |
|-------------------|--|--------|-------------------------------|
| T_{stg} | — 贮存温度 | | - 40 ~ 125 $^{\circ}\text{C}$ |
| T_j | — 结温 | | - 40 ~ 125 $^{\circ}\text{C}$ |
| P_{GM} | — 峰值门极功耗 | | 1.5 W |
| V_{DRM} | — 重复峰值断态电压 | | 600 V |
| $I_T(\text{RMS})$ | — RMS通态电流 ($T_a=95^{\circ}\text{C}$) | | 2.0A |
| V_{GM} | — 峰值门极电压 | | 5 V |
| I_{GM} | — 峰值门极电流 | | 1 A |
| I_{TSM} | — 浪涌通态电流(一个周期,50/60Hz,峰值,不重复) | | 25/30A |

外形图及引脚排列

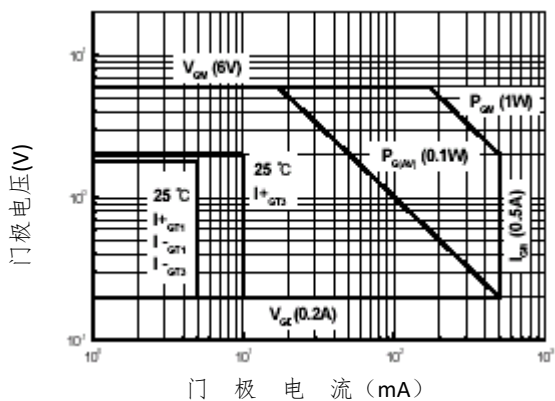


电参数 ($T_a=25^{\circ}\text{C}$)

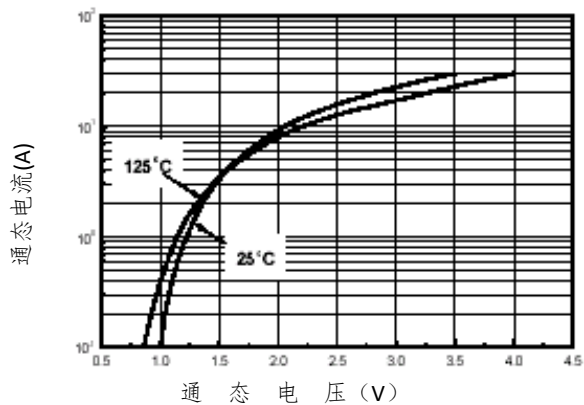
| 参数符号 | 符 号 说 明 | 最小值 | 最大值 | 单 位 | 测 试 条 件 |
|---------------|---------------|-----|------|----------------------|---|
| I_{DRM} | 重复峰值断态电流 | | 1.0 | mA | $V_D=V_{DRM}$, 单相, 半波, $T_J=125^{\circ}\text{C}$ |
| V_{TM} | 峰值通态电压 | | 1.7 | V | $I_T=5.0\text{A}$, 快速测量 |
| I_{+GT1} | 门极触发电流 | | 5.0 | mA | $V_D=12\text{V}$, $R_L=10\text{ ohm}$ |
| I_{-GT1} | 门极触发电流 | | 5.0 | mA | $V_D=12\text{V}$, $R_L=10\text{ ohm}$ |
| I_{-GT3} | 门极触发电流 | | 5.0 | mA | $V_D=12\text{V}$, $R_L=10\text{ ohm}$ |
| I_{+GT3} | 门极触发电流 | | 10.0 | mA | $V_D=12\text{V}$, $R_L=10\text{ ohm}$ |
| V_{GT} | 门极触发电压 | | 1.5 | V | $V_D=12\text{V}$, $R_L=10\text{ ohm}$ |
| V_{GD} | 不触发门极电压 | 0.2 | | V | $T_J=125^{\circ}\text{C}$, $V_D=1/2V_{DRM}$ |
| $(dv/dt)_c$ | 断态电压临界 上升率 | 11 | | V/ μS | $T_J=125^{\circ}\text{C}$, $V_D=2/3V_{DRM}$ $(di/dt)_c=-2.0\text{A/ms}$ |
| $R_{th(j-c)}$ | 热阻 | | 3.5 | $^{\circ}\text{C/W}$ | 结到外壳 |
| I_H | 维持电流 | | 10.0 | mA | |

特性曲线

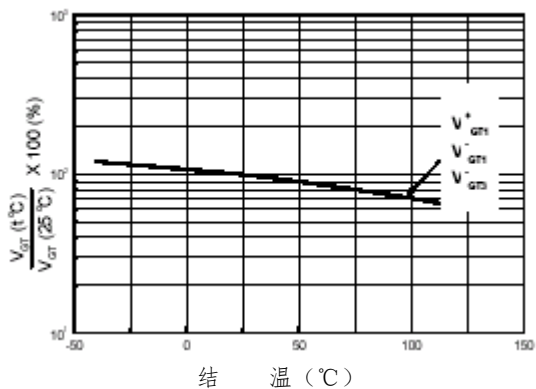
图一、门极特性



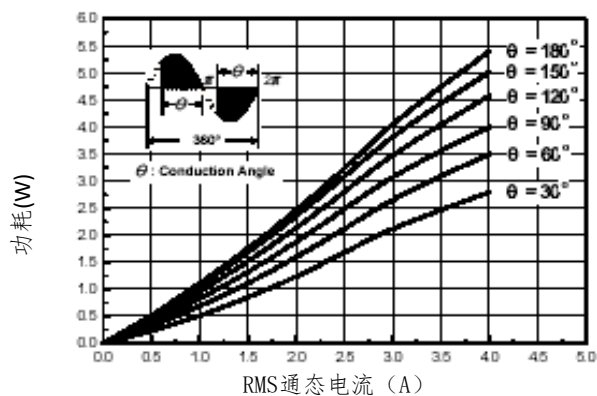
图二、通态电压



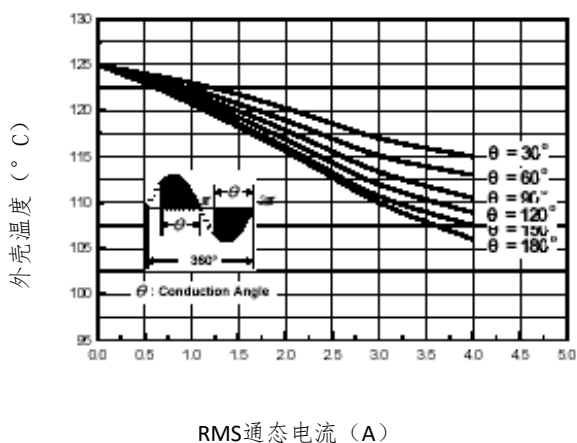
图三、门极触发电压-----结温



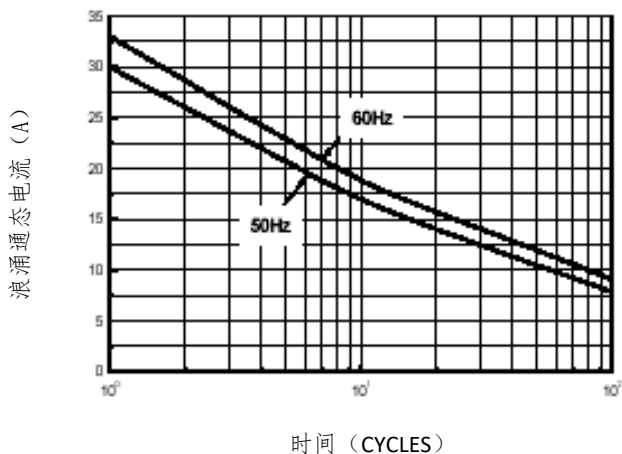
图四、通态电流---最大功耗



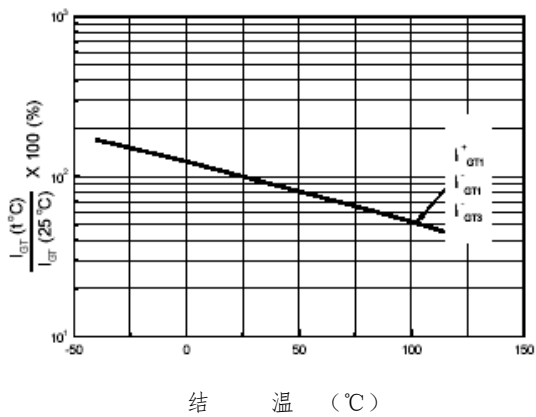
图五、通态电流---外壳温度



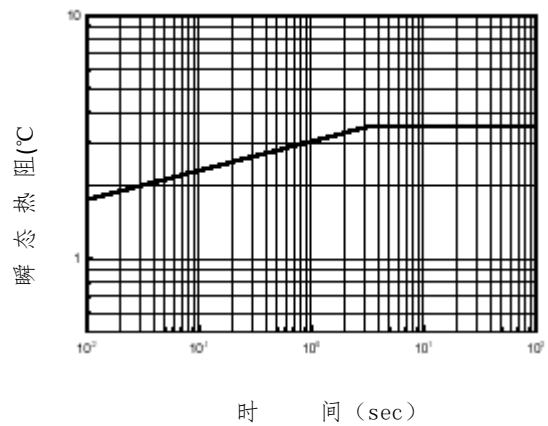
图六、浪涌通态最大电流（不重复）



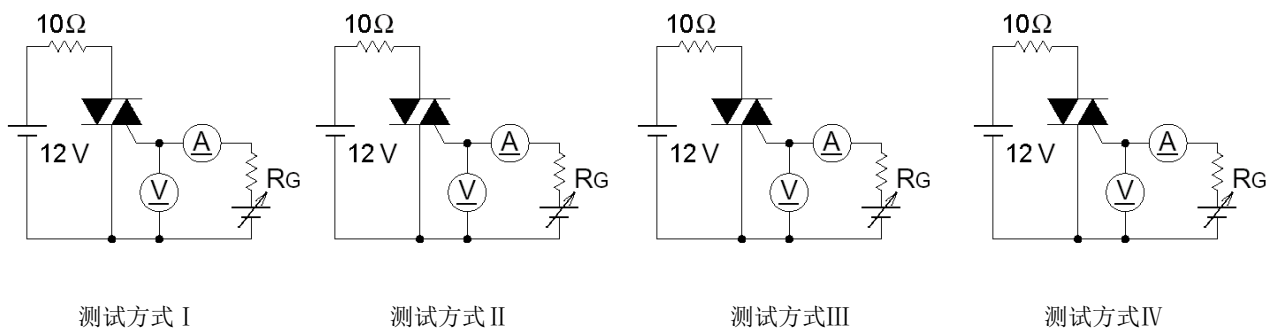
图七、门极触发电流——结温



图八、瞬态热阻



图九、门极触发特性测试电路





NOTE:

1. Exceeding the maximum ratings of the device in performance may cause damage to the device, even the permanent failure, which may affect the dependability of the machine. Please do not exceed the absolute maximum ratings of the device when circuit designing.
2. When installing the heat sink, please pay attention to the torsional moment and the smoothness of the heat sink.
3. MOSFETs is the device which is sensitive to the static electricity, it is necessary to protect the device from being damaged by the static electricity when using it.
4. Shenzhen Minos reserves the right to make changes in this specification sheet and is subject to change without prior notice.

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