

T0835NMP

主要参数 MAIN CHARACTERISTICS

| | |
|--------------|------|
| $I_{T(RMS)}$ | 8A |
| V_{DRM} | 800V |
| I_{GT} | 35mA |

用途

- 交流开关
- 相位控制

APPLICATIONS

- AC switching
- Phase control

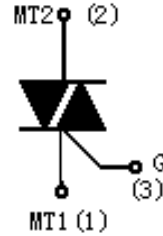
产品特性

- 平面工艺芯片高可靠性和一致性
- 三象限可控硅,触发电流的一致性
- 环保 RoHS 产品

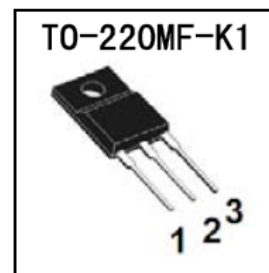
FEATURES

- The planar process chip for reliability and uniform
- Uniform gate trigger currents in three quadrants
- RoHS products

封装 Package



| 序号 Pin | 引线名称 Description |
|-----------|---------------------|
| 1 | 主电极 1 MT1 |
| 2 | 主电极 2 MT2 |
| 3 | 门极 G |



订货信息 ORDER MESSAGES

| 订货型号 Order codes | | | | 印 记 Marking | 封 装 Package |
|------------------|-------------------|--------------|-------------------|----------------|----------------|
| 有卤-条管 | 无卤-条管 | 有卤-编带 | 无卤-编带 | | |
| Halogen-Tube | halogen-Free-Tube | Halogen-Reel | Halogen-Free-Reel | | |
| T0835NMP-F1-B | N/A | N/A | N/A | T0835NMP | TO-220MF-K1 |

绝对最大额定值 ABSOLUTE RATINGS ($T_c=25^\circ\text{C}$)

| 项 目 Parameter | 符 号 Symbol | 试 验 条 件 Condition | 数 值 Value | 单 位 Unit |
|--|---------------------|---|--------------|------------------------|
| 重复峰值断态电压 Repetitive peak off-state voltage | V_{DRM} | | ± 800 | V |
| 通态方均根电流 On-state RMS current | $I_{\text{T(RMS)}}$ | full sine wave | 8 | A |
| 非重复浪涌峰值通态电流 Non-repetitive surge peak on-state current | I_{TSM} | full sine wave ,t=20ms | 80 | A |
| | | full sine wave ,t=16.7ms | 84 | A |
| | | I^2t | t=10ms | 36 |
| 通态电流临界上升率 Repetitive rate of rise of on-state current after triggering | di/dt | $I_{\text{TM}}=12\text{A}$, $I_{\text{G}}=0.2\text{A}$, $di_{\text{G}}/dt=0.2\text{A}/\mu\text{s}$ | 50 | $\text{A}/\mu\text{s}$ |
| 峰值门极电流 Peak gate current | I_{GM} | | 4 | A |
| 峰值门极电压 Peak gate voltage | V_{GM} | | 5 | V |
| 峰值门极功率 Peak gate power | P_{GM} | | 5 | W |
| 平均门极功率 Average gate power | $P_{\text{G(AV)}}$ | over any 20ms period | 1 | W |
| 存储温度 Storage temperature | T_{stg} | | -40~150 | $^\circ\text{C}$ |
| 操作结温 Operation junction temperature | T_{VJ} | | -40~150 | $^\circ\text{C}$ |

电特性 ELECTRICAL CHARACTERISTIC (T_C=25°C)

| 项 目 Parameter | 符 号 Symbol | 测 试 条 件 Condition | 最小 Min | 典型 Typ | 最大 Max | 单位 Unit |
|--|------------------|--|-----------|-----------|-----------|------------|
| 峰值重复断态电流 Peak Repetitive Blocking Current | I _{DRM} | V _{DM} =V _{DRM} , T _j =150°C, gate open | - | - | 1.0 | mA |
| 峰值通态电压 Peak on-state voltage | V _{TM} | I _{TM} =11.3A | - | 1.3 | 1.55 | V |
| 门极触发电流 Gate trigger current | I _{GT} | V _{DM} =12V, R _L =100 Ω, MT1(-),MT2(+),G(+) | 2 | - | 35 | mA |
| | | MT1(-),MT2(+),G(-) | 2 | - | 35 | mA |
| | | MT1(+),MT2(-),G(-) | 2 | - | 35 | mA |
| 门极触发电压 Gate trigger voltage | V _{GT} | V _{DM} =12V, R _L =100 Ω, MT1(-),MT2(+),G(+) | - | 0.7 | 1.0 | V |
| | | MT1(-),MT2(+),G(-) | - | 0.7 | 1.5 | V |
| | | MT1(+),MT2(-),G(-) | - | 0.7 | 1.5 | V |
| 维持电流 Holding current | I _H | V _{DM} =12V, I _{GT} =0.1A | - | - | 50 | mA |
| 擎住电流 Latching current | I _L | V _{DM} =12V, I _{GT} =0.1A, MT1(-),MT2(+),G(+) | - | - | 50 | mA |
| | | MT1(-),MT2(+),G(-) | - | - | 50 | mA |
| | | MT1(+),MT2(-),G(-) | - | - | 50 | mA |
| 断态临界电压上升率 Rise of off- state voltage | dV/dt | V _{DM} =67% V _{DRM(MAX)} , T _j =150°C, gate open | 1000 | - | - | V/μs |
| 门极开通时间 Gate controlled turn-on time | tgt | I _{TM} =6A, V _{DM} =V _{DRM(MAX)} , I _G =0.1A, dI _G /dt=5A/μs | - | 2 | - | μs |

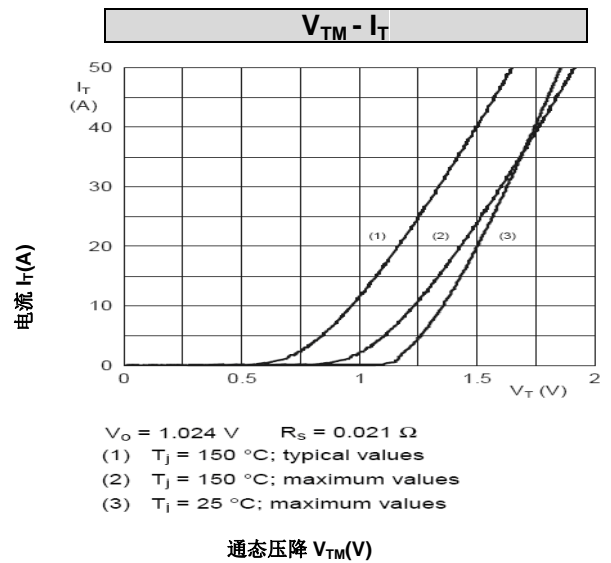
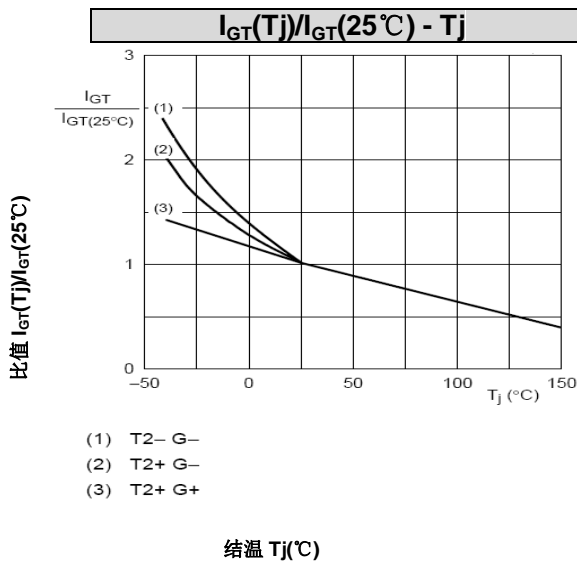
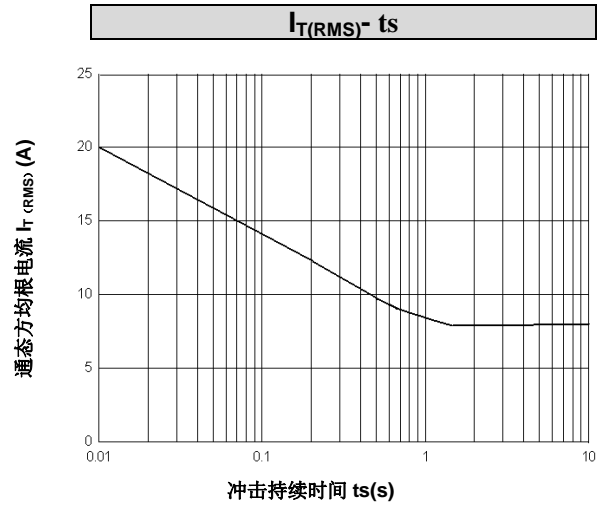
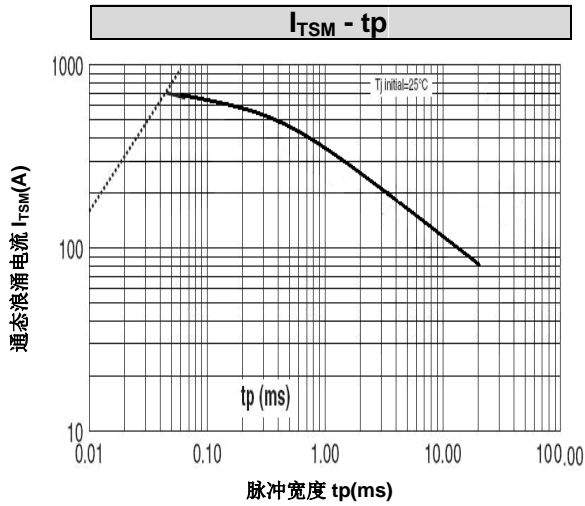
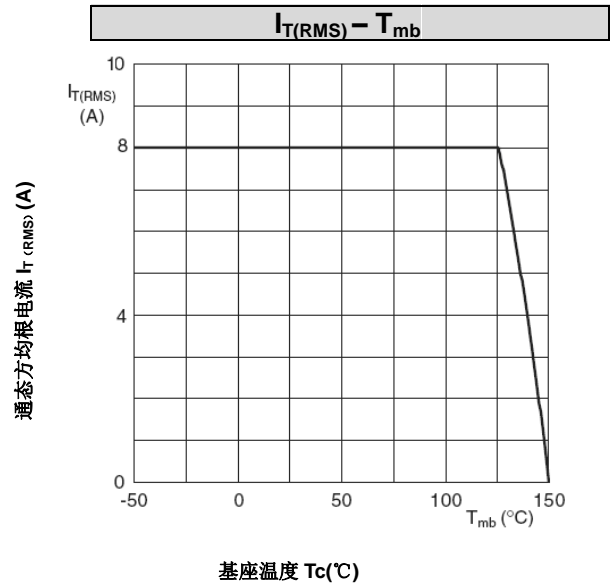
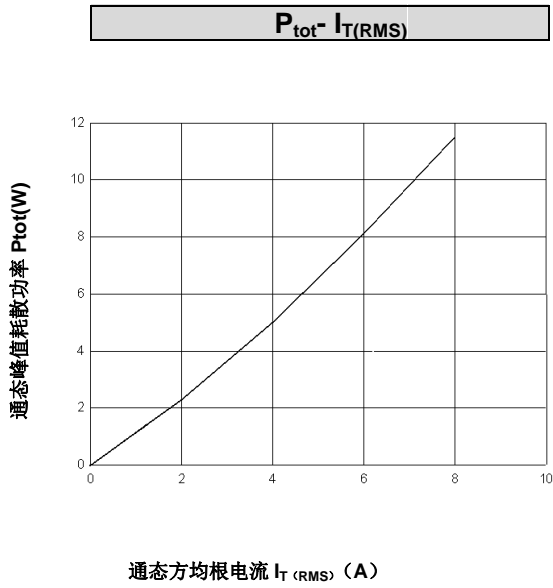
热特性 THERMAL CHARACTERISTIC

| 项 目 Parameter | 符 号 Symbol | 条 件 Condition | 最小 Min | 典型 Typ | 最大 Max | 单位 Unit |
|--|-----------------------|-------------------------|-----------|-----------|-----------|------------|
| 结到安装面的热阻 Thermal resistance junction to mounting base | R _{th(j-mb)} | full cycle(TO-220MF-K1) | | | 2.0 | °C/W |

电绝缘特性 ELECTRICAL ISOLATION

| 项 目 Parameter | 符 号 Symbol | 条 件 Condition | 数 值 Value | 单 位 Unit |
|---------------------------|-------------------|--|--------------|-------------|
| 绝缘电压 Isolation voltage | V _{ISOL} | 1 minute, leads to mounting tab TO-220MF-K1 | 2000 | V |

特征曲线 ELECTRICAL CHARACTERISTICS (curves)



外形尺寸 PACKAGE MECHANICAL DATA

TO-220MF-K1

单位 Unit : mm

