



Z0607NS/ Z0607NA

主要参数 MAIN CHARACTERISTICS

| | |
|--------------|------|
| $I_{T(RMS)}$ | 1.0A |
| V_{DRM} | 800V |
| I_{GT} | 5mA |

用途

- 交流开关
- 相位控制

产品特性

- 玻璃钝化芯片, 高可靠性和一致性
- 低通态电流和高浪涌电流能力
- 环保 RoHS 产品

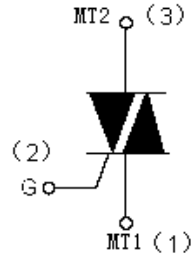
APPLICATIONS

- AC switching
- Phase control

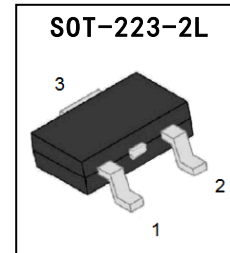
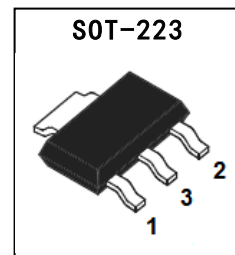
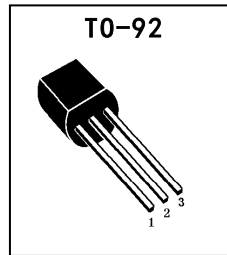
FEATURES

- Glass-passivated mesa chip for reliability and uniform
- Low on-state voltage and High I_{TSM}
- RoHS products

封装 Package



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





订货信息 ORDER MESSAGES

| 订货型号 Order codes | | | | 印 记 Marking | 封 装 Package |
|------------------|-------------------|-------------|------------------|-------------------|----------------|
| 有卤-编带弹 带盒装 | 无卤-编带弹带 盒装 | 有卤-袋装 | 无卤-袋装 | | |
| Halogen-Tape | Halogen-Free-Tape | Halogen-Bag | Halogen-Free-Bag | Z0607NA | TO-92 |
| Z0607NA-T-E | Z0607NA-T-ER | Z0607NA-T-C | Z0607NA-T-CR | Z0607NS | SOT-223 |
| 有卤-编带 | 无卤-编带 | | | 印 记 Marking | 封 装 Package |
| Halogen-Reel | Halogen-Free-Reel | | | Z0607NS | SOT-223-2L |
| Z0607NS-NC-A | Z0607NS-NC-AR | N/A | N/A | Z0607NS | SOT-223-2L |
| Z0607NS-NL-A | Z0607NS-NL-AR | N/A | N/A | Z0607NS | SOT-223-2L |

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 | 1.0 | A |
| 非重复浪涌峰值通态电流 Non-repetitive surge peak on-state current | I_{TSM} | full sine wave, $t=20\text{ms}$ | 12 | A |
| | | full sine wave, $t=16.7\text{ms}$ | 12.8 | A |
| | I^2t | $t=10\text{ms}$ | 0.72 | A^2s |
| 通态电流临界上升率 Repetitive rate of rise of on-state current after triggering | dI/dt | MT1(-),MT2(+),G(+); MT1(-),MT2(+),G(-); MT1(+),MT2(-),G(-) | 20 | $\text{A}/\mu\text{s}$ |
| 峰值门极电流 Peak gate current | I_{GM} | | 1 | A |
| 平均门极功率 Average gate power | $P_{\text{G(AV)}}$ | | 0.5 | W |
| 存储温度 Storage temperature | T_{stg} | | -40~150 | $^{\circ}\text{C}$ |
| 操作结温 Operation junction temperature | T_{VJ} | | 125 | $^{\circ}\text{C}$ |



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 =125°C, gate open | - | - | 0.5 | mA | |
| 峰值通态电压 Peak on-state voltage | V _{TM} | I _{TM} =2A | - | - | 1.7 | V | |
| 门极触发电压 Gate trigger voltage | V _{GT} | V _{DM} =12V, R _L =100 Ω | - | - | 1.5 | V | |
| | | | | | | | |
| 项 目 Parameter | 符 号 Symbol | 测 试 条 件 Condition | Z0607NS | Z0607NA | 单位 Unit | | |
| 门极触发电流 Gate trigger current | I _{GT} | V _{DM} =12V, R _L =100 Ω | MT1(-),MT2(+),G(+) | Max. | 5 | 5 | mA |
| | | | MT1(-),MT2(+),G(-) | Max. | 5 | 5 | mA |
| | | | MT1(+),MT2(-),G(-) | Max. | 5 | 5 | mA |
| | | | MT1(+),MT2(-),G(+) | Max. | 7 | 7 | mA |
| 维持电流 Holding current | I _H | V _{DM} =12V, I _{GT} =0.1A | Max. | 5 | 5 | mA | |
| 擎住电流 Latching current | I _L | V _{DM} =12V, I _{GT} =0.1A | Max. | 15 | 15 | 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 =125°C, gate open | Min. | 25 | 25 | V/ μ s | |

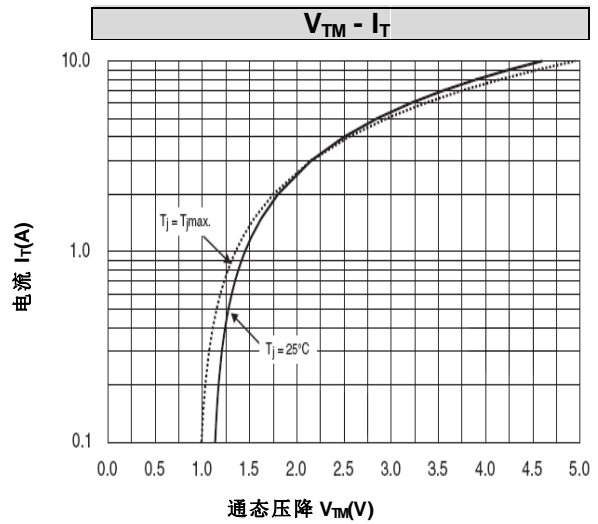
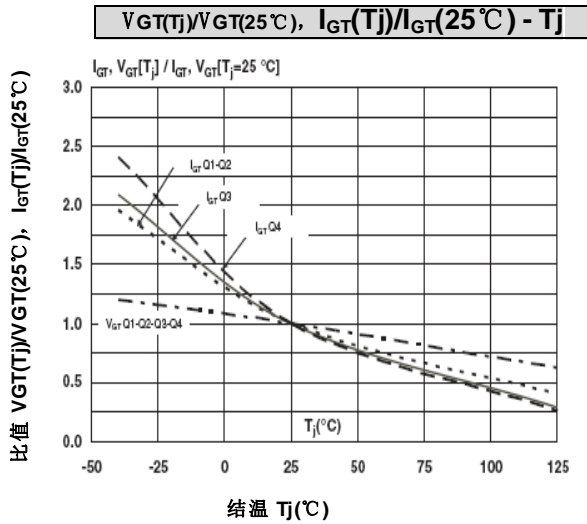
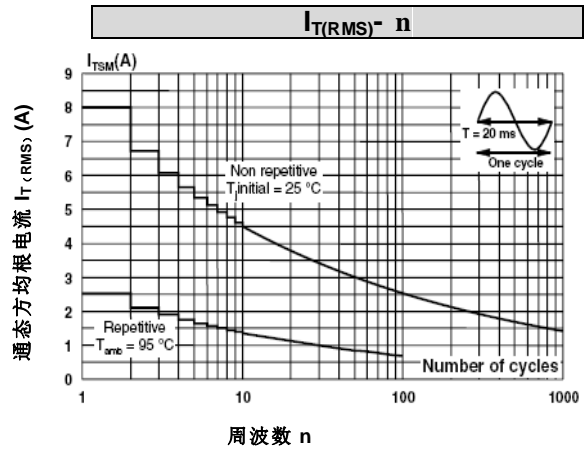
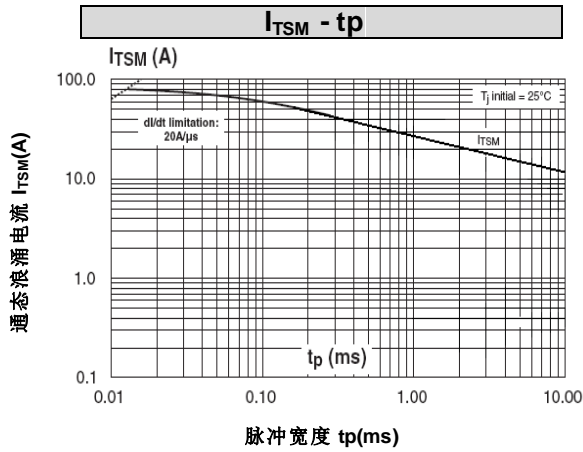
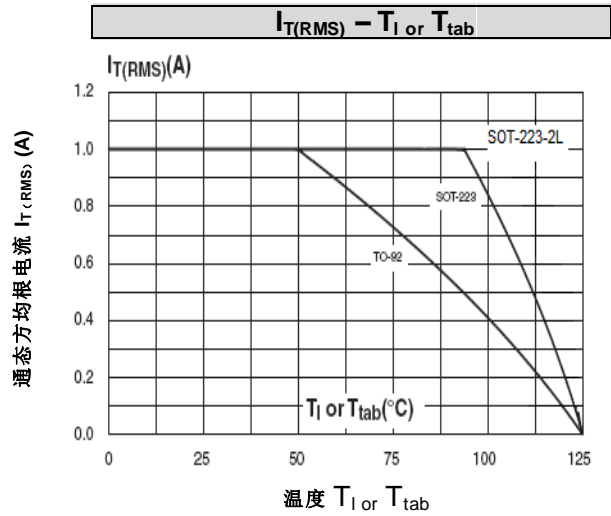
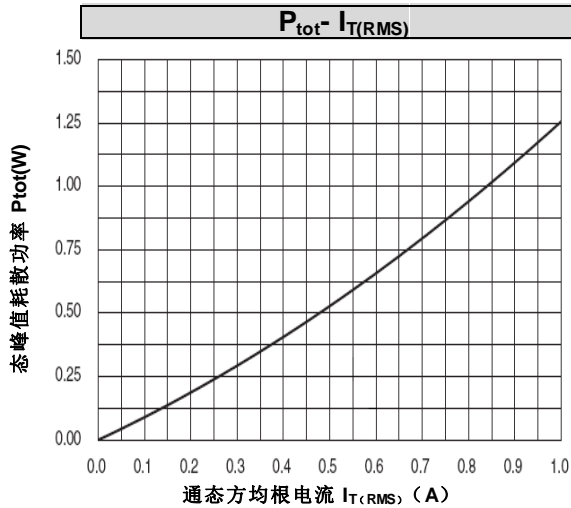
热特性 THERMAL CHARACTERISTIC

| 项 目 Parameter | 符 号 Symbol | 条 件 Condition | 最小 Min | 典型 Typ | 最大 Max | 单位 Unit |
|---|----------------------|----------------------|-----------|-----------|-----------|------------|
| 结到引线的热阻 Thermal resistance junction to tab | R _{th(j-t)} | full cycle (SOT-223) | - | - | 25 | °C/W |
| 结到引线的热阻 Thermal resistance junction to lead | R _{th(j-l)} | full cycle (TO-92) | - | - | 60 | °C/W |





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

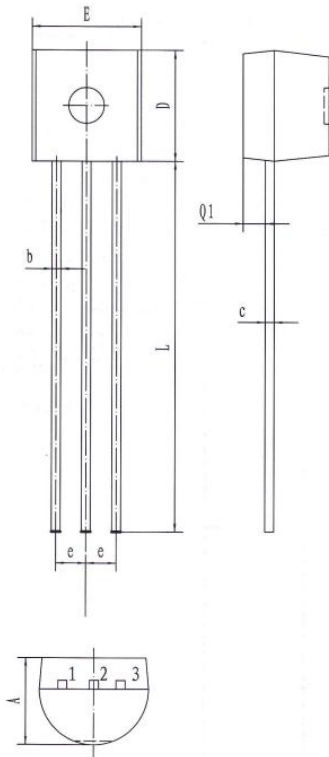




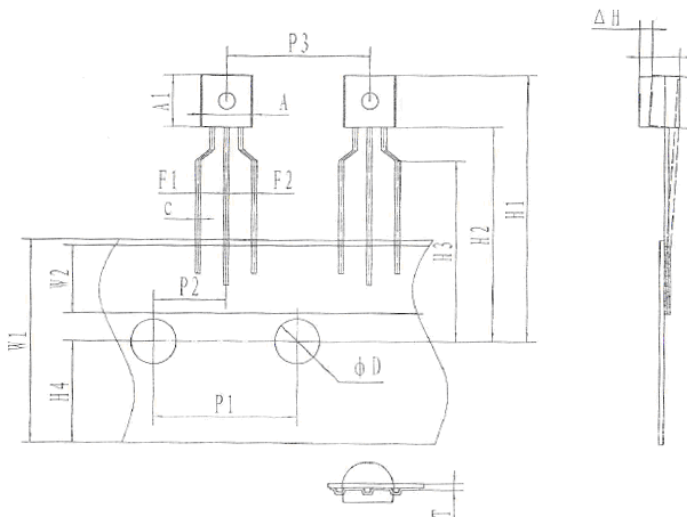
外形尺寸 PACKAGE MECHANICAL DATA

TO-92

单位 Unit : mm



| 符号 Symbol | 尺寸 (mm) Size (mm) |
|--------------|----------------------|
| A | 3.30-3.90 |
| b | 0.35-0.55 |
| c | 0.31-0.51 |
| D | 4.30-4.90 |
| E | 4.30-4.90 |
| e | 1.17-1.37 |
| L | 12.50-15.50 |
| Q1 | 0.85-1.00 |



| 符号 Symbol | 尺寸 (mm) Size (mm) |
|--------------|----------------------|
| A | 4.50-4.70 |
| A1 | 4.50-4.70 |
| A2 | 3.50-3.70 |
| c | TYP 0.45 |
| F1/F2 | 2.20-2.80 |
| W1 | 17.5-18.5 |
| W2 | 5.50-6.50 |
| H1 | 22.0-27.0 |
| H2 | 18.0-20.0 |
| H3 | 15.0-17.0 |
| H4 | 8.50-9.50 |
| P1 | 12.5-12.9 |
| P2 | 6.00-6.70 |
| P3 | 12.5-12.9 |
| T | 0.40-0.45 |
| φ D | 3.80-4.20 |
| △H | 0.00-1.00 |

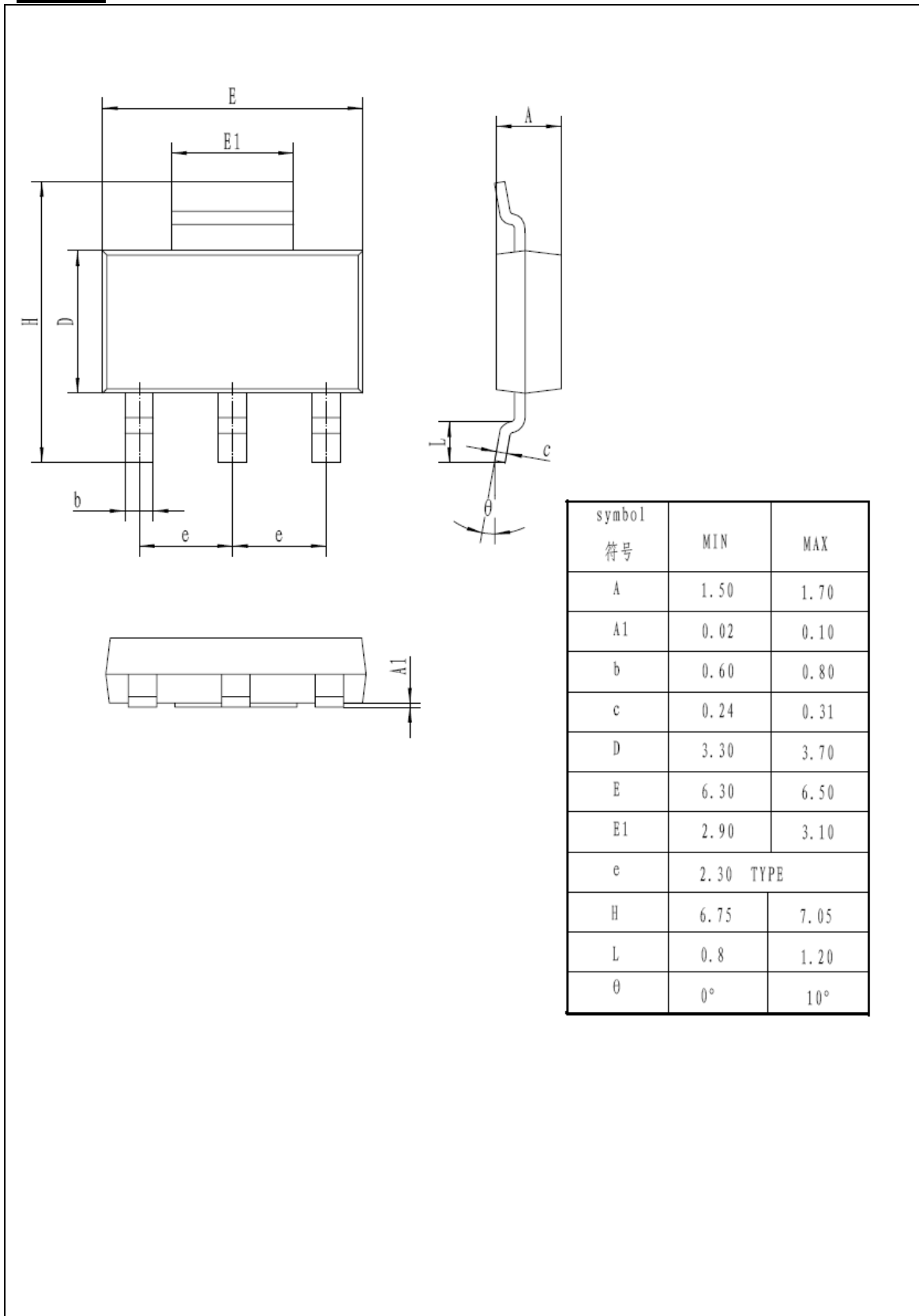




外形尺寸 PACKAGE MECHANICAL DATA

SOT-223

单位 Unit : mm

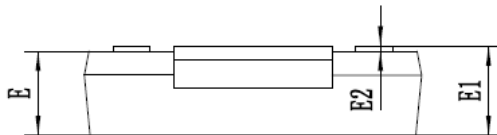
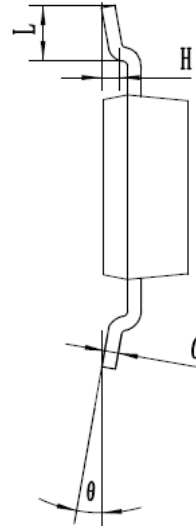
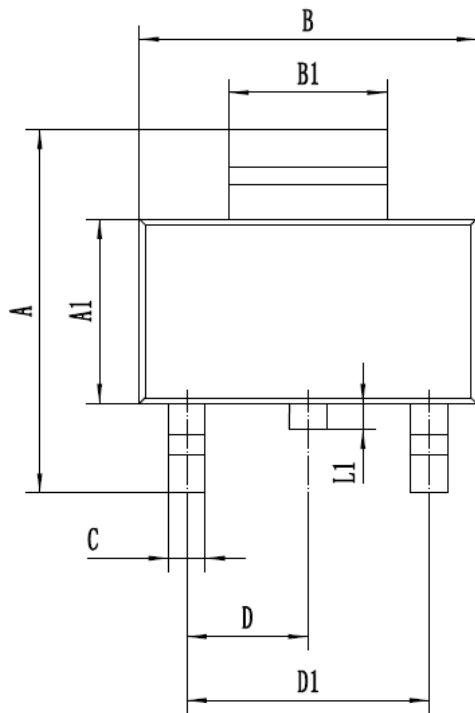




外形尺寸 PACKAGE MECHANICAL DATA

SOT-223-2L

单位 Unit : mm



| SYMBOL | mm | | |
|----------|------|------|------|
| | MIN | NOM | MAX |
| A | 6.65 | 6.95 | 7.25 |
| A1 | 3.3 | 3.5 | 3.7 |
| B | 6.2 | 6.4 | 6.6 |
| B1 | 2.8 | 3.0 | 3.2 |
| C | 0.64 | 0.74 | 0.84 |
| D | 2.20 | 2.30 | 2.40 |
| D1 | 4.4 | 4.6 | 4.8 |
| E | 1.4 | 1.6 | 1.8 |
| E1 | 1.40 | 1.66 | 1.95 |
| E2 | 0 | | 0.15 |
| G | 0.23 | 0.30 | 0.37 |
| H | 0.18 | 0.25 | 0.32 |
| L | 0.7 | 0.95 | 1.2 |
| L1 | | | 0.8 |
| θ | | | 10° |



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