

◆ 用途

专门应用于各种万能开关器、小型马达控制器、漏电保护器、灯具继电器、激励器、逻辑集成电路驱动、大功率可控硅门极驱动等线路功率控制。

◆ 特征

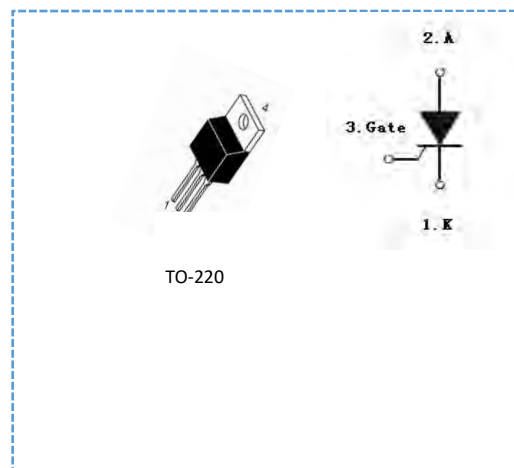
采用先进的玻璃钝化工艺，较低的通态压降，高的可靠性、稳定性

◆ 极限值

| 名称 | 符号 | 规范值 | 单位 | 测试条件 |
|-----------|-------------------|---------|-------------|-----------------------------------------------|
| 断态重复峰值电压 | V_{DRM}/V_{RRM} | 600/800 | V | |
| 通态均方根电流 | $I_{T(RMS)}$ | 8 | A | $T_c=105^{\circ}C$ |
| 浪涌电流 | I_{TSM} | 80 | A | 正弦波 60Hz t=10ms |
| | I^2t | 50 | A^2s | $t_p=10ms$ |
| 通态电流临界上升率 | di/dt | 50 | $A/\mu s$ | $I_{TM}=50A$ $I_G=0.2A$ $di_G/dt=0.2 A/\mu s$ |
| 门极峰值电流 | I_{GM} | 2 | A | $T_j=125^{\circ}C$ $t_p=20\mu s$ |
| 门极峰值电压 | V_{GM} | 5 | V | $T_j=125^{\circ}C$ |
| 门极峰值功率 | P_{GM} | 5 | W | $T_j=125^{\circ}C$ |
| 平均门极功率 | $P_{G(AV)}$ | 0.5 | W | $T_j=125^{\circ}C$ |
| 结温 | T_j | 125 | $^{\circ}C$ | |
| 贮存温度 | T_{stg} | -40~150 | $^{\circ}C$ | |

◆ 电特性

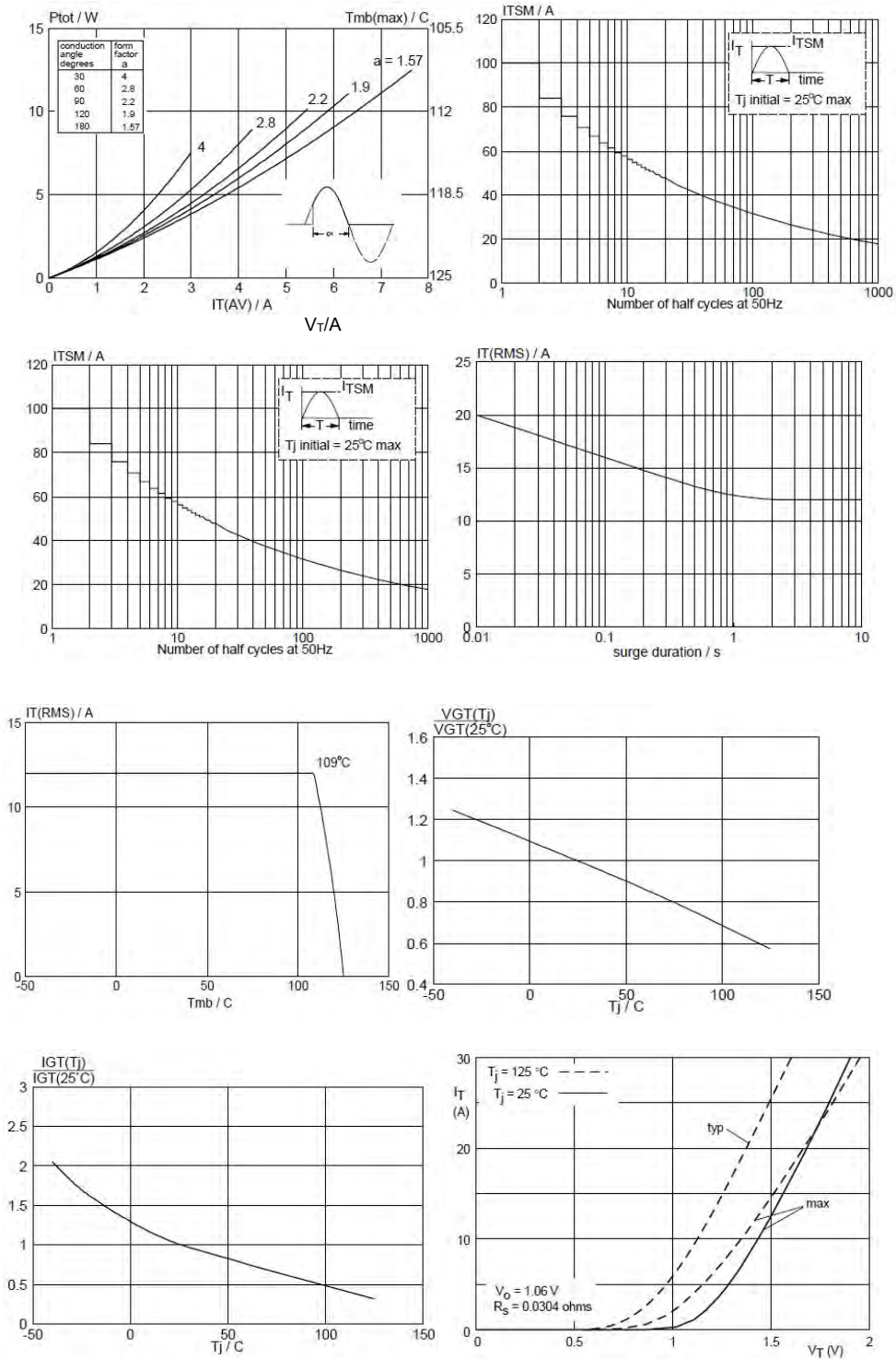
| 名称 | 符号 | 测试条件 | | BT151 | 单位 |
|-----------|-----------|---------------------------------------------------|-----|-------|-----------|
| 断态重复峰值电流 | I_{DRM} | $V_{DRM}=V_{RRM}$ $T_j=25^{\circ}C$ | MAX | 5 | μA |
| | | $V_{DRM}=V_{RRM}$ $T_j=125^{\circ}C$ | MAX | 1 | mA |
| 通态电压 | V_{TM} | $I_T=23A$ $T_j=25^{\circ}C$ | MAX | 1.7 | V |
| 维持电流 | I_H | $V_D=12V$ $I_G=100mA$ | MAX | 20 | mA |
| 擎住电流 | I_L | $V_D=12V$ $I_G=100mA$ | MAX | 40 | mA |
| 门极触发电流 | I_{GT} | $V_D=12V$ $I_T=0.1A$ | MAX | 15 | mA |
| 门极触发电压 | V_{GT} | | | 1.3 | V |
| 断态电压临界上升率 | dV/dt | $V_{DM}=67\%V_{DRM}$ Gate open $T_j=125^{\circ}C$ | MIN | 130 | $V/\mu s$ |

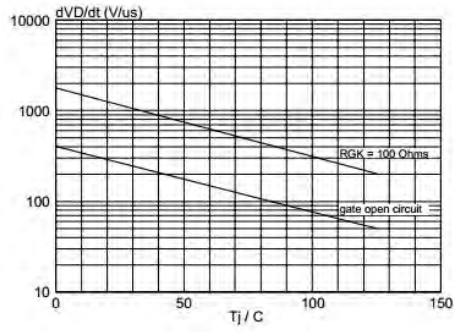
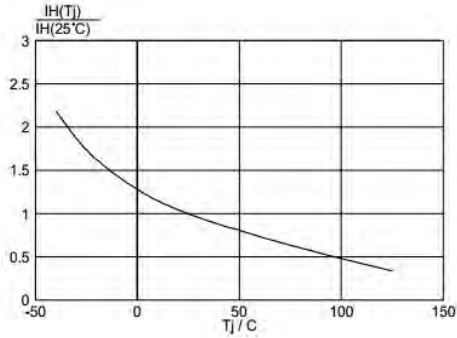
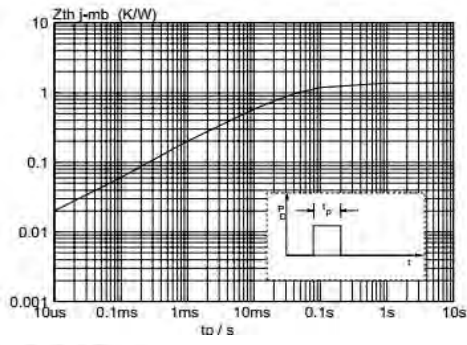
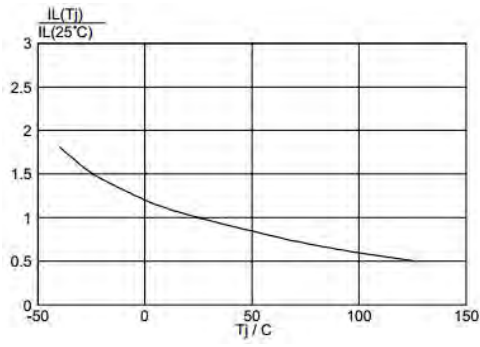


◆ 产品保管条件

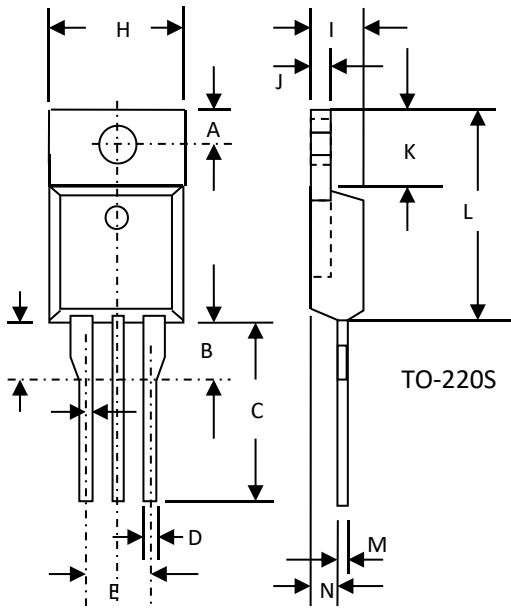
| | |
|------|---------|
| 温度 | 10-30°C |
| 湿度 | <60% |
| 放置期限 | 一年 |
| 保管状态 | 仓储 |

◆ 特性数据



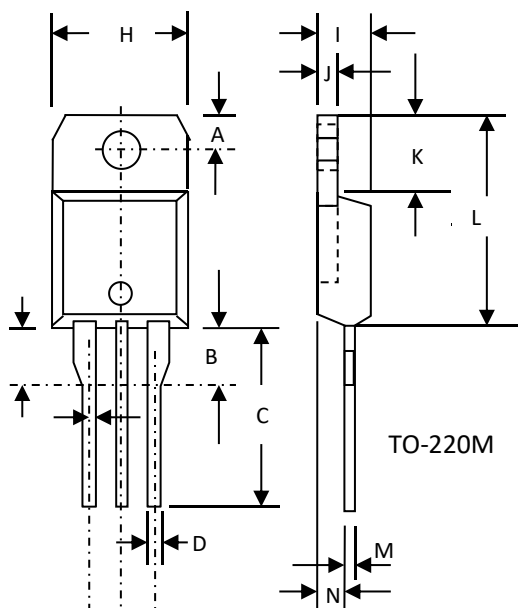


◆ 产品尺寸

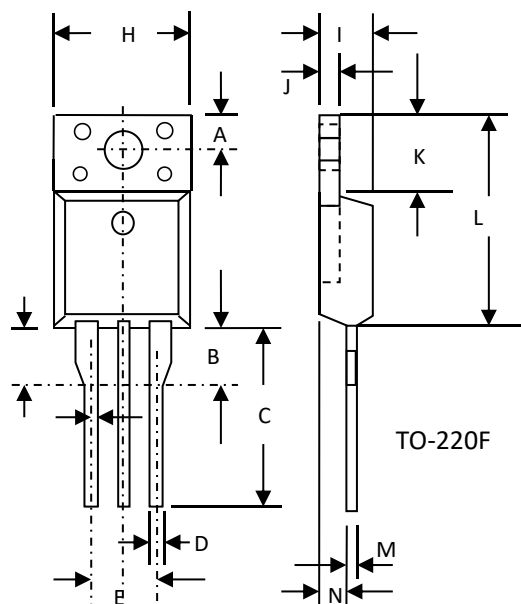


| REF. | DIMENSIONS | | REF. | DIMENSIONS | |
|------|-------------|--|------|-------------|--|
| | Millimeters | | | Millimeters | |
| | Type(max) | | | Type(max) | |
| A | 2.8±0.05 | | I | 4.65±0.05 | |
| B | 3.67±0.02 | | J | 1.28±0.02 | |
| C | 13.65±0.05 | | K | 6.4±0.02 | |
| D | 0.8 | | L | 15.15±0.02 | |
| E | 5.0 | | M | 0.4±0.02 | |
| H | 10.25±0.05 | | N | 2.73±0.02 | |

| Ref. | Dimensions | | | | | |
|------|-------------|-------|------|--------|-------|-------|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 2.20 | | 2.40 | 0.086 | | 0.094 |
| A1 | 0.90 | | 1.10 | 0.035 | | 0.043 |
| A3 | 0.70 | | 1.30 | 0.027 | | 0.051 |
| B | 0.64 | | 0.90 | 0.025 | | 0.035 |
| B2 | 5.20 | | 5.40 | 0.204 | | 0.212 |
| B3 | | | 0.95 | | | 0.037 |
| B5 | | 0.30 | | | 0.035 | |
| C | 0.45 | | 0.60 | 0.017 | | 0.023 |
| C2 | 0.48 | | 0.60 | 0.019 | | 0.023 |
| D | 6 | | 6.20 | 0.236 | | 0.244 |
| E | 6.40 | | 6.60 | 0.252 | | 0.260 |
| e | | 2.28 | | | 0.090 | |
| G | 4.40 | | 4.60 | 0.173 | | 0.181 |
| H | | 16.10 | | | 0.634 | |
| L | 9 | | 9.40 | 0.354 | | 0.370 |
| L1 | 0.8 | | 1.20 | 0.031 | | 0.047 |
| L2 | | 0.80 | 1 | | 0.031 | 0.039 |
| V1 | | | 10° | | | 10° |



| REF. | DIMENSIONS | | REF. | DIMENSIONS | |
|------|--------------|--|------|--------------|--|
| | Millimeters | | | Millimeters | |
| | Type | | | Type | |
| A | 3.03 ± 0.05 | | I | 4.45 ± 0.05 | |
| B | 3.6 ± 0.02 | | J | 1.28 ± 0.02 | |
| C | 14.33 ± 0.05 | | K | 6.56 ± 0.02 | |
| D | 0.83 | | L | 15.41 ± 0.02 | |
| H | 10.02 ± 0.05 | | M | 0.5 ± 0.05 | |
| | | | N | 2.72 ± 0.02 | |



| REF. | DIMENSIONS | | REF. | DIMENSIONS | |
|------|--------------|--|------|-------------|--|
| | Millimeters | | | Millimeters | |
| | Type | | | Type | |
| A | 3.35 ± 0.03 | | I | 4.72 ± 0.01 | |
| B | 3.3 ± 0.03 | | J | 2.63 ± 0.02 | |
| C | 12.77 ± 0.03 | | K | 6.8 ± 0.01 | |
| D | 0.8 ± 0.01 | | L | 15.7 ± 0.03 | |
| E | 5.06 ± 0.02 | | M | 0.5 ± 0.05 | |
| H | 10.12 ± 0.03 | | N | 2.4 ± 0.02 | |

