



JST134H-800T 4A TRIAC

Rev.

DESCRIPTION:

The JST134H-800T triac is suitable for general purpose AC switching. It can be used as an ON/OFF function in applications such as heating regulation, speed control on motor starting circuits, for phase control operation of light dimmers, motor speed controllers. From 1 to 2 terminals to external heatsink. Package TO-251 is RoHS compliant.

MAIN FEATURES

ABSOLUTE MAXIMUM RATINGS

| Parameter | Symbol | Value | Unit |
|---|---------------------|-------|------------------|
| Storage junction temperature range | T _{stg} | -50 | |
| Operating junction temperature range | T _j | 25 | |
| Repetitive peak off-state voltage (T _j =25°C) | V _{DRM} | | V |
| Repetitive peak reverse voltage (T _j =25°C) | V _{RPM} | | V |
| RMS on-state current (T _c = 84°C) | I _{T(RMS)} | | A |
| Non repetitive surge peak on-state current (full cycle, t _p =20ms, T _j =25°C) | I _{TSM} | | A |
| Non repetitive surge peak on-state current (full cycle, t _p =16.6ms, T _j =25°C) | | | |
| I ² t value for fusing (t _p =10ms, T _j =25°C) | I ² t | 5 | A ² s |

Critical rate of rise of on-state current (I_{GT}≠2× I_{GT}, / T_m)

ELECTRICAL CHARACTERISTICS ($T_j=25$ unless otherwise specified)

| Symbol | Test Condition | Quadrant | Value | | Unit |
|-------------|---|----------|-------|-----|------------|
| I_{GT} | $V_D=12V$ $R_L=33$ | ALL | MAX. | 5 | mA |
| V_{GT} | | ALL | MAX. | 1 | V |
| V_{GD} | $V_D=V_{DRM}$ $T_j=125$ $R_L=3.3k$ | ALL | MIN. | 0.2 | V |
| I_L | $I_G=1.2I_{GT}$ | - - | MAX. | 9 | mA |
| | | | | 13 | |
| I_H | $I_T=100mA$ | | MAX. | 5 | mA |
| dV/dt | $V_D=540V$ Gate Open $T_j=110$ | | MIN. | 20 | V/ μs |
| $(dV/dt)_c$ | $(dI/dt)_c=1.8A/ms$, $T_j=110$ | | MIN. | 1.2 | V/ μs |
| t_{on} | $I_G=10mA$ $I_A=200mA$ $I_R=20mA$ $T_j=25$ | | TYP. | 2 | μs |
| t_{off} | | | | 20 | |

STATIC CHARACTERISTICS

| Symbol | Parameter | | Value (MAX.) | Unit |
|-----------|-----------------------------|-----------|--------------|---------|
| V_{TM} | $I_{TM}=5A$ $t_p=380\mu s$ | $T_j=25$ | 1.55 | V |
| V_{TO} | Threshold voltage | $T_j=125$ | 0.92 | V |
| R_D | Dynamic resistance | $T_j=125$ | 107 | m |
| I_{DRM} | $V_D=V_{DRM}$ $V_R=V_{RRM}$ | $T_j=25$ | 5 | μA |
| I_{RRM} | | $T_j=125$ | 0.35 | mA |

THERMAL RESISTANCES

| Symbol | Parameter | Value | Unit |
|---------------|--------------------------|-------|------|
| $R_{th(j-c)}$ | junction to case (AC) | 7.0 | /W |
| $R_{th(j-a)}$ | junction to ambient (AC) | 150 | /W |

ORDERING INFORMATION

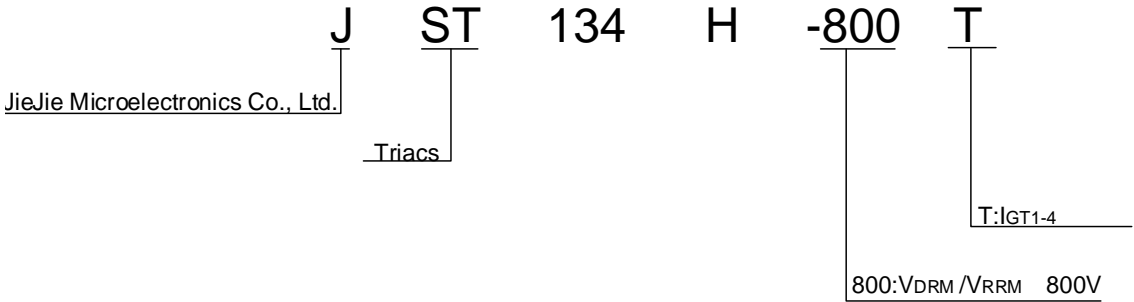


FIG.1: Maximum power dissipation versus RMS on-state current

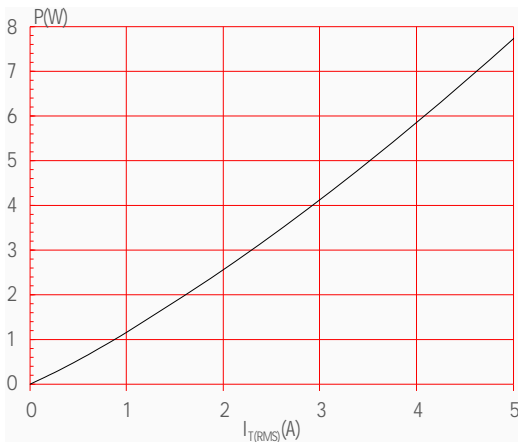


FIG.3: Surge peak on-state current versus number of cycles

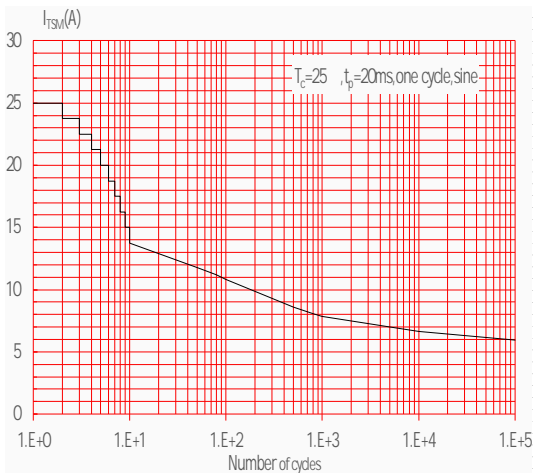


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 20\text{ms}$, and corresponding value of I^2t (--- : $di/dt < 30\text{A}/\mu\text{s}$; - - - : $di/dt < 20\text{A}/\mu\text{s}$)

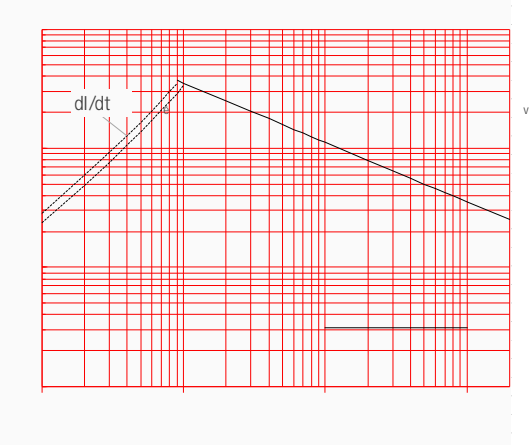


FIG.2: RMS on-state current versus case temperature

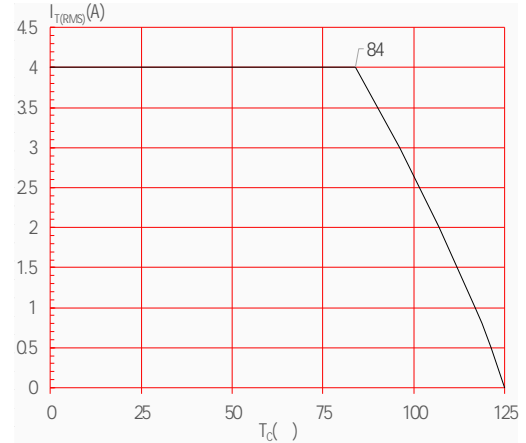


FIG.4: On-state characteristics

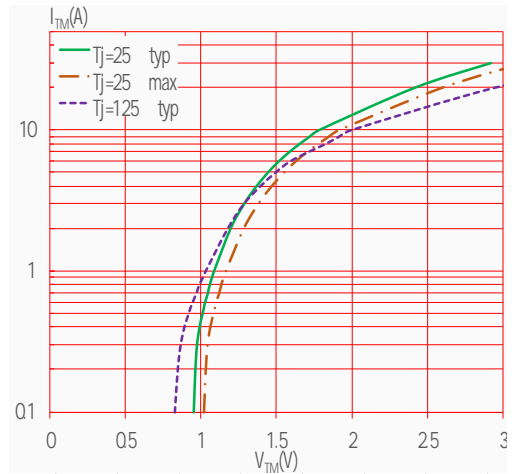
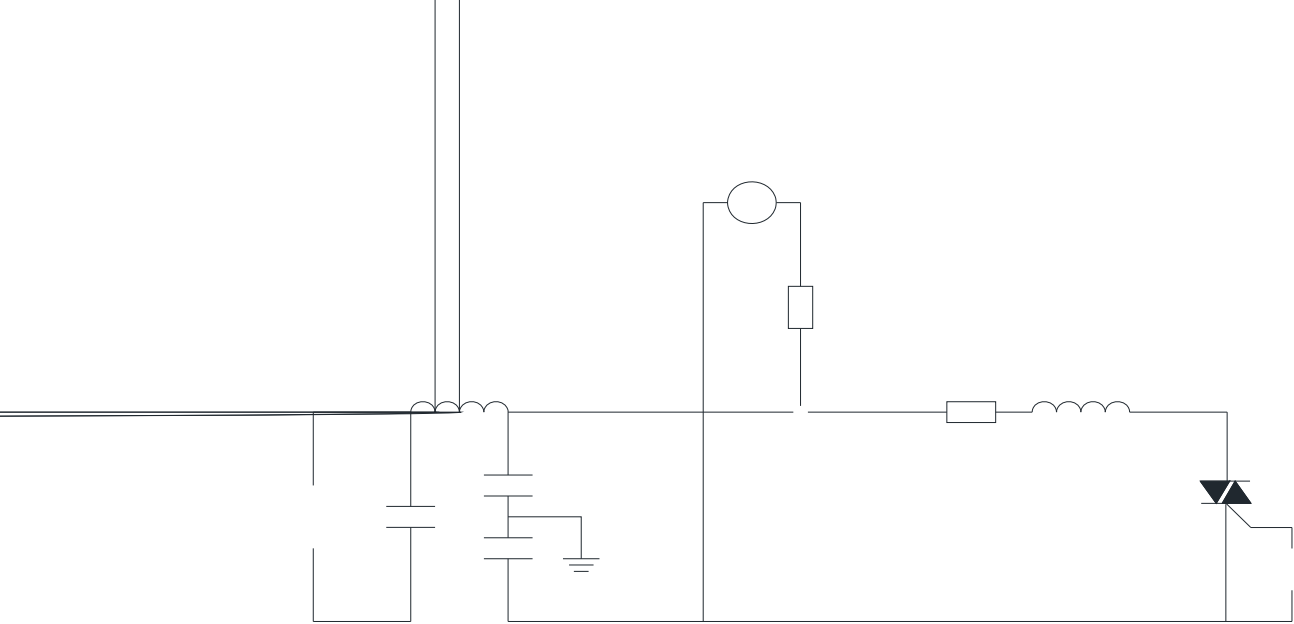


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature

FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



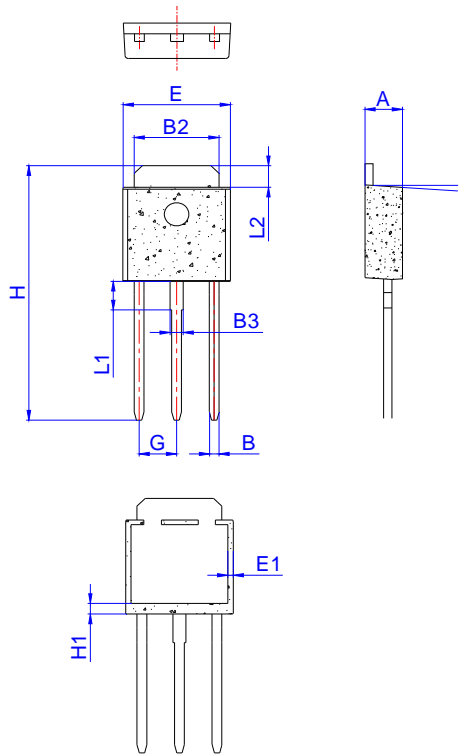
ORDERING INFORMATION

| Order code | Voltage V_{DRM}/V_{RRM} (V) | IGT(mA) | Package | Base qty. (pcs) | Delivery mode |
|---------------------|----------------------------------|----------|---------------|--------------------|------------------|
| | | - - | | | |
| JST134H-800T | 800 | 5 | TO-251 | 80 | Tube |

Document Revision History

| Date | Revision | Changes |
|--------------|----------|--------------------------------|
| Apr.14, 2023 | A.1.0 | Last updated |
| Oct.24, 2025 | A.1.1 | Revise PACKAGE MECHANICAL DATA |


PACKAGE MECHANICAL DATA



| Ref. | Dimensions | | | | | |
|------|-------------|------|-------|--------|------|-------|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 2.20 | | 2.40 | 0.086 | | 0.095 |
| A2 | 1.00 | | 1.30 | 0.039 | | 0.051 |
| B | 0.50 | | 0.70 | 0.020 | | 0.028 |
| B2 | 5.10 | | 5.40 | 0.200 | | 0.213 |
| B3 | | | | | | |
| C | | | | | | |
| C2 | | | | | | |
| D | | | | | | |
| E | | | | | | |
| E1 | 0.60 | | 1.00 | 0.024 | | 0.039 |
| G | | | | | | |
| H | 16.00 | | 17.00 | 0.630 | | 0.669 |
| H1 | 1.45 | | 1.85 | 0.057 | | 0.073 |
| L1 | | | | | | |

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