

| | | | |
|--|----------|-----|----|
| Peak pulse voltage ($T_j=25^{\circ}\text{C}$; non-repetitive, off-state; FIG.7) | V_{pp} | 1.5 | kV |
|--|----------|-----|----|

ELECTRICAL CHARACTERISTICS ($T_j=25^{\circ}\text{C}$ unless otherwise specified)

| Symbol | Test Condition | Quadrant | Value | | Unit |
|--------------------------|--|-------------|-------|-----|------------------|
| I_{GT} | $V_D=12\text{V } R_L=33\Omega$ | I - II -III | MAX. | 5 | mA |
| V_{GT} | | I - II -III | MAX. | 1 | V |
| V_{GD} | $V_D=V_{DRM} T_j=125^{\circ}\text{C}$ $R_L=3.3\text{K}\Omega$ | I - II -III | MIN. | 0.2 | V |
| I_L | $I_G=1.2I_{GT}$ | I -III | MAX. | 10 | mA |
| | | II | | 15 | |
| I_H | $I_T=100\text{mA}$ | | MAX. | 10 | mA |
| dV/dt | $V_D=540\text{V}$ Gate Open $T_j=125^{\circ}\text{C}$ | | MIN. | 100 | V/ μs |
| (dI/dt) _c | (dV/dt) _c =10V/ μs , $T_j=125^{\circ}\text{C}$ | | MIN. | 0.5 | A/ms |
| t_{on} | $I_G=10\text{mA } I_A=200\text{mA } I_R=20\text{mA}$ $T_j=25^{\circ}\text{C}$ | | TYP. | 2 | μs |
| t_{off} | | | | 20 | |

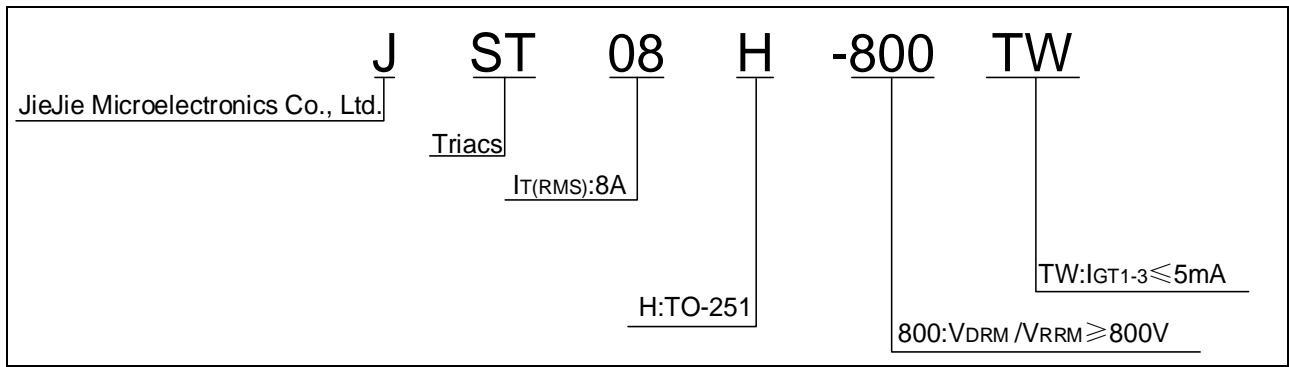
STATIC CHARACTERISTICS

| Symbol | Parameter | | Value(MAX.) | Unit |
|-----------|---|---------------------------|-------------|---------------|
| V_{TM} | $I_{TM}=11\text{A } t_p=380\mu\text{s}$ | $T_j=25^{\circ}\text{C}$ | 1.5 | V |
| V_{TO} | Threshold voltage | $T_j=125^{\circ}\text{C}$ | 0.8 | V |
| R_D | Dynamic resistance | $T_j=125^{\circ}\text{C}$ | 44 | m Ω |
| I_{DRM} | $V_D=V_{DRM} V_R=V_{RRM}$ | $T_j=25^{\circ}\text{C}$ | 5 | μA |
| I_{RRM} | | $T_j=125^{\circ}\text{C}$ | 0.35 | mA |

THERMAL RESISTANCES

| Symbol | Parameter | Value | Unit |
|---------------|--------------------------|-------|----------------------|
| $R_{th(j-c)}$ | junction to case (AC) | 3 | $^{\circ}\text{C/W}$ |
| $R_{th(j-a)}$ | junction to ambient (AC) | 100 | $^{\circ}\text{C/W}$ |

ORDERING INFORMATION



MARKING

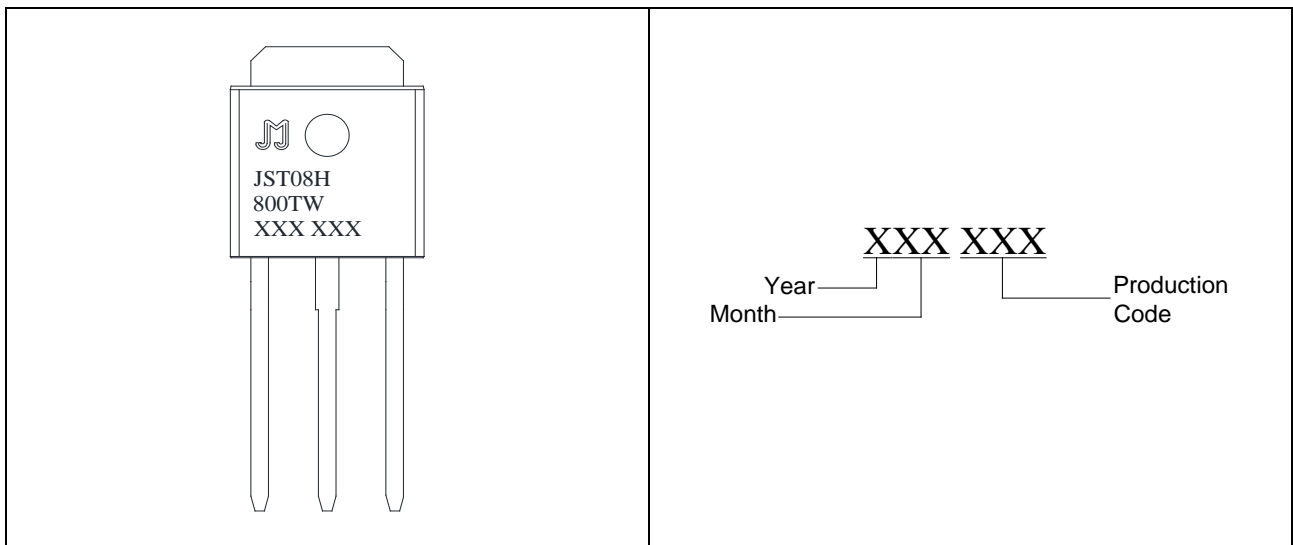


FIG.1 Maximum power dissipation versus RMS on-state current

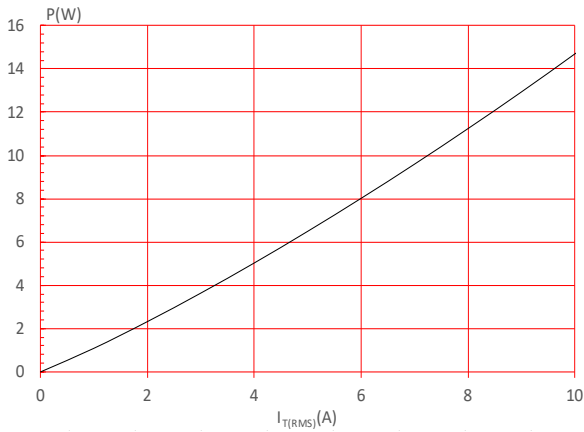


FIG.2: RMS on-state current versus case temperature

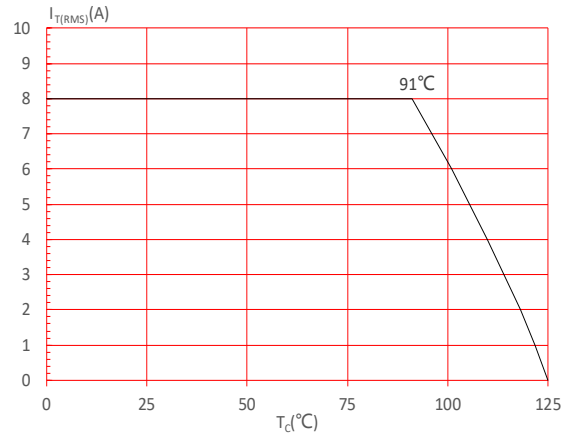


FIG.3: Surge peak on-state current versus number of cycles

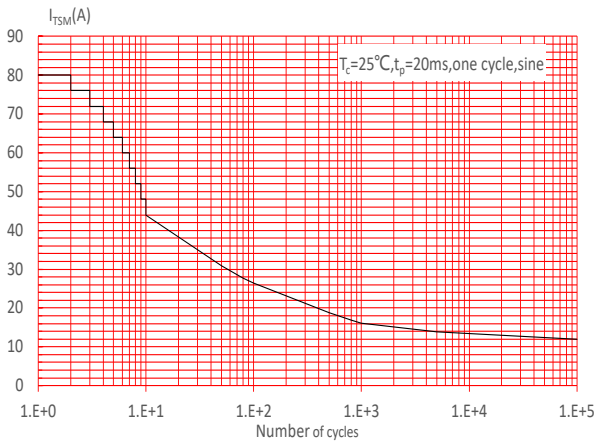


FIG.4: On-state characteristics

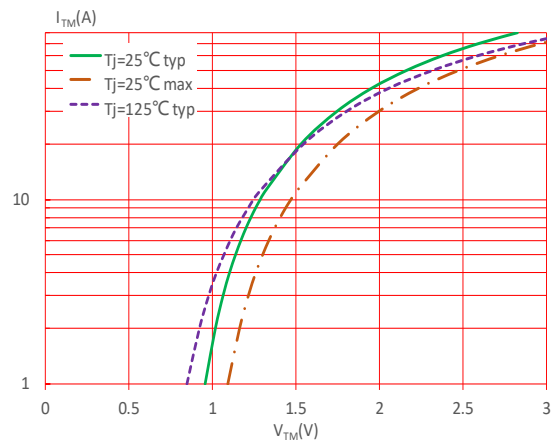


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 20\text{ms}$, and corresponding value of I^2t ($di/dt < 100\text{A}/\mu\text{s}$)

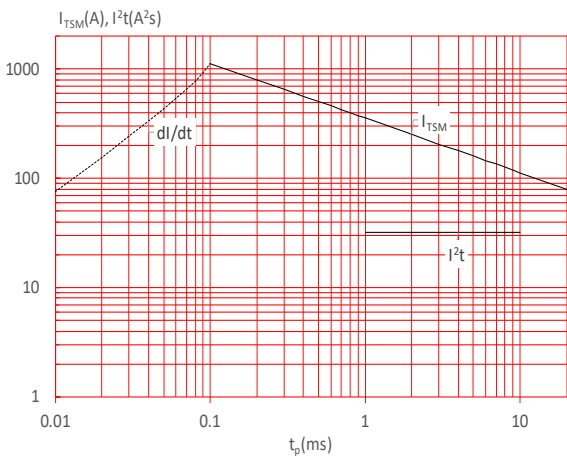


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature

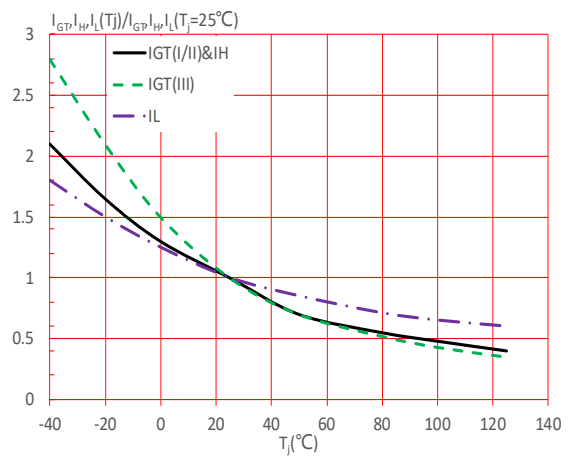
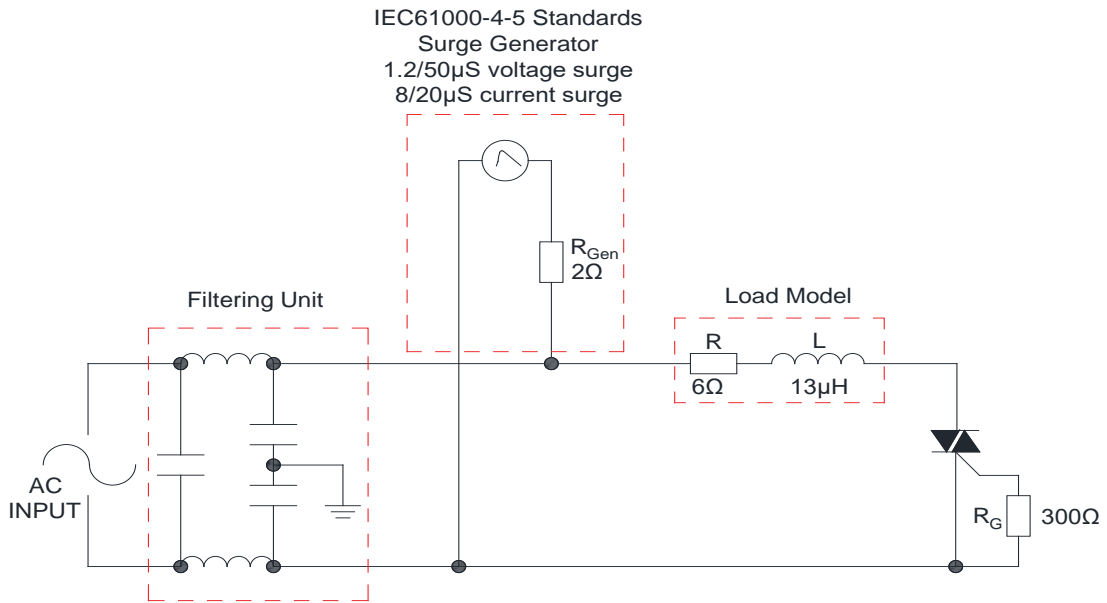


FIG.7: Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



SHAPING AND SOLDERING PARAMETERS

Refer to 《Instructions for installation of plastic-sealed in-line power devices》 released by JieJie

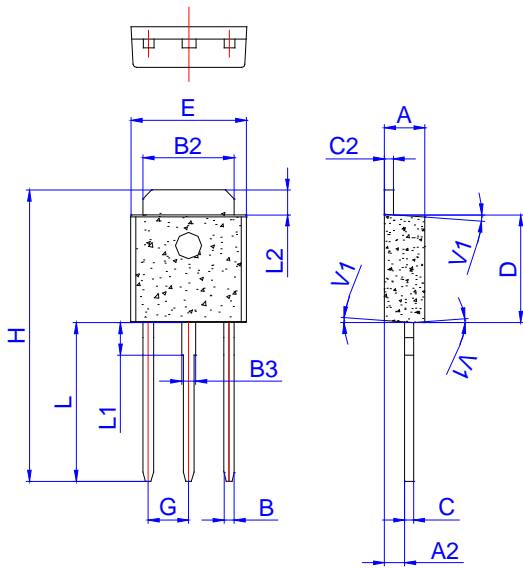
ORDERING INFORMATION

| Order code | Voltage V_{DRM}/V_{RRM} (V) | IGT(mA) | Package | Base qty. (pcs) | Delivery mode |
|--------------|----------------------------------|--------------|---------|--------------------|------------------|
| | | I - II - III | | | |
| JST08H-800TW | 800 | 5 | TO-251 | 80 | Tube |

Document Revision History

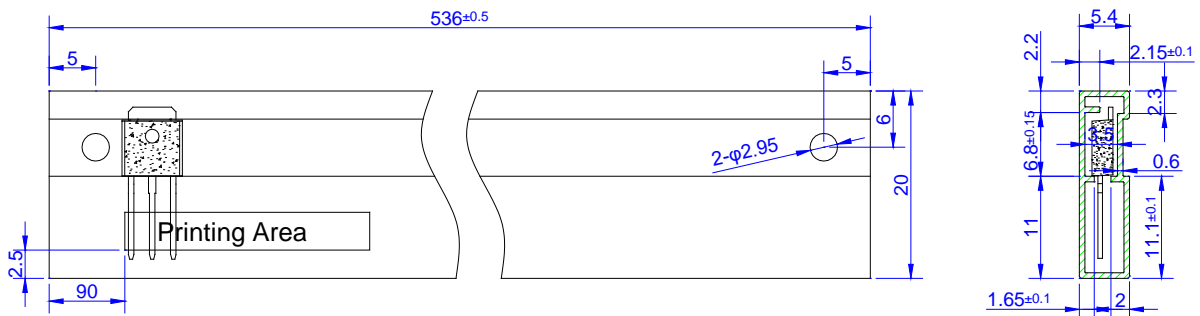
| Date | Revision | Changes |
|--------------|----------|--------------|
| Apr.12, 2023 | A.1.0 | Last updated |

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 | 0.70 | | 1.00 | 0.028 | | 0.039 |
| C | 0.45 | | 0.62 | 0.018 | | 0.024 |
| C2 | 0.48 | | 0.62 | 0.019 | | 0.024 |
| D | 6.00 | | 6.20 | 0.236 | | 0.244 |
| E | 6.40 | | 6.70 | 0.252 | | 0.264 |
| G | 2.20 | | 2.40 | 0.087 | | 0.094 |
| H | 16.0 | | 17.0 | 0.630 | | 0.669 |
| L | 8.90 | | 9.40 | 0.350 | | 0.370 |
| L1 | 1.80 | | 2.20 | 0.071 | | 0.087 |
| L2 | 1.25 | | 1.55 | 0.049 | | 0.061 |
| V1 | | 4° | | | 4° | |


DELIVERY MODE



| PACKAGE | OUTLINE | TUBE (PCS) | INNER BOX (PCS) | PER CARTON |
|---------|---------|------------|-----------------|------------|
| TO-251 | TUBE | 80 | 4,000 | 20,000 |

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