



JST04H-800CW 4A TRIAC

Rev.A.1.1

## DESCRIPTION:

The JST04H-800CW triac is suitable for general purpose AC switching. It can be used as an ON/OFF function in applications such as heating regulation, induction motor starting circuits, for phase control operation in light dimmers, motor speed controllers. JST04H-800CW snubberless triac is especially recommended for use on inductive loads. From T2 terminals to external heatsink. Package TO-251 is RoHS compliant.

## MAIN FEATURES

## ABSOLUTE MAXIMUM RATINGS

| Parameter  | Symbol    | Value   | Unit |
|--|-----------|---------|------|
| Storage junction temperature range                           | $T_{stg}$ | -40-150 |      |
| Operating junction temperature range                         | $T_j$     | -40-125 |      |
| Repetitive peak off-state voltage ( $T_j=25^\circ\text{C}$ ) | $V_{DRM}$ | 800     | V    |

|  |          |   |    |
|--|----------|---|----|
| Peak pulse voltage<br>( $T_j=25$ ; non-repetitive, off-state; FIG.7) | $V_{pp}$ | 4 | kV |
|--|----------|---|----|

### ELECTRICAL CHARACTERISTICS (unless otherwise specified)

| Symbol      | Test Condition                                | Quadrant | Value |      | Unit |
|-------------|---|----------|-------|------|------|
| $I_{GT}$    | $V_D=12V$ $R_L=33$                            | - -      | MAX.  | 35   | mA   |
| $V_{GT}$    |   | - -      | MAX.  | 1    | V    |
| $V_{GD}$    | $V_D=V_{DRM}$ $T_j=125$<br>$R_L=3.3k$         | - -      | MIN.  | 0.2  | V    |
| $I_L$       | $I_G=1.2I_{GT}$                               | -        | MAX.  | 50   | mA   |
|             |   |          |       | 60   |      |
| $I_H$       | $I_T=100mA$                                   |          | MAX.  | 35   | mA   |
| $dV/dt$     | $V_D=540V$ Gate Open $T_j=125$                |          | MIN.  | 1200 | V/s  |
| $(dI/dt)_c$ | $(dV/dt)_c=20V/s$ , $T_j=125$                 |          | MIN.  | 8    | A/ms |
| $t_{on}$    | $I_G=40mA$ $I_A=200mA$ $I_R=20mA$<br>$T_j=25$ |          | TYP.  | 3    | s    |
| $t_{off}$   |   |          |       | 30   |      |

### STATIC CHARACTERISTICS

| Symbol   | Parameter               |           | Value(MAX.) | Unit |
|----------|-------------------------|-----------|-------------|------|
| $V_{TM}$ | $I_{TM}=5A$ $t_p=380$ s | $T_j=25$  | 1.65        | V    |
| $V_{TO}$ | Threshold voltage       | $T_j=125$ | 0.799       | V    |



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

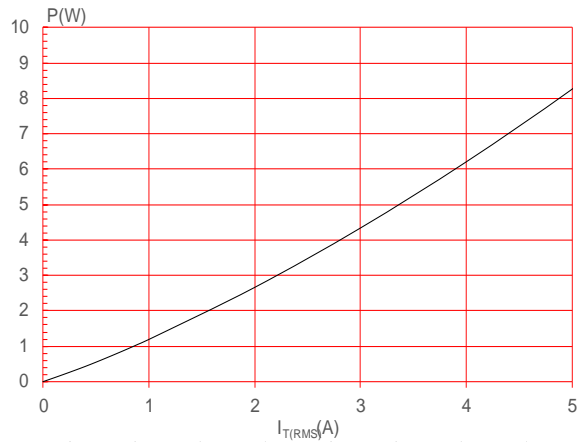


FIG.2: RMS on-state current versus case temperature

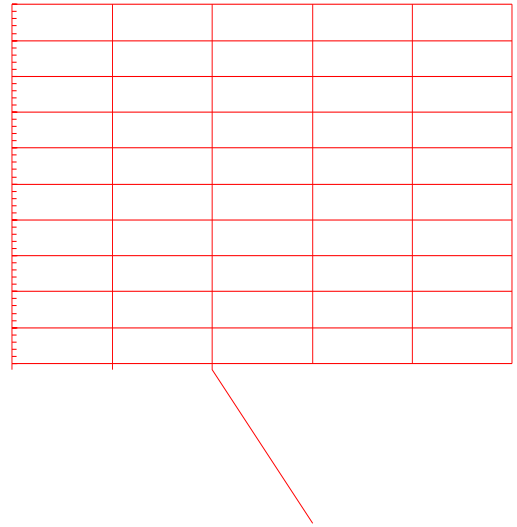
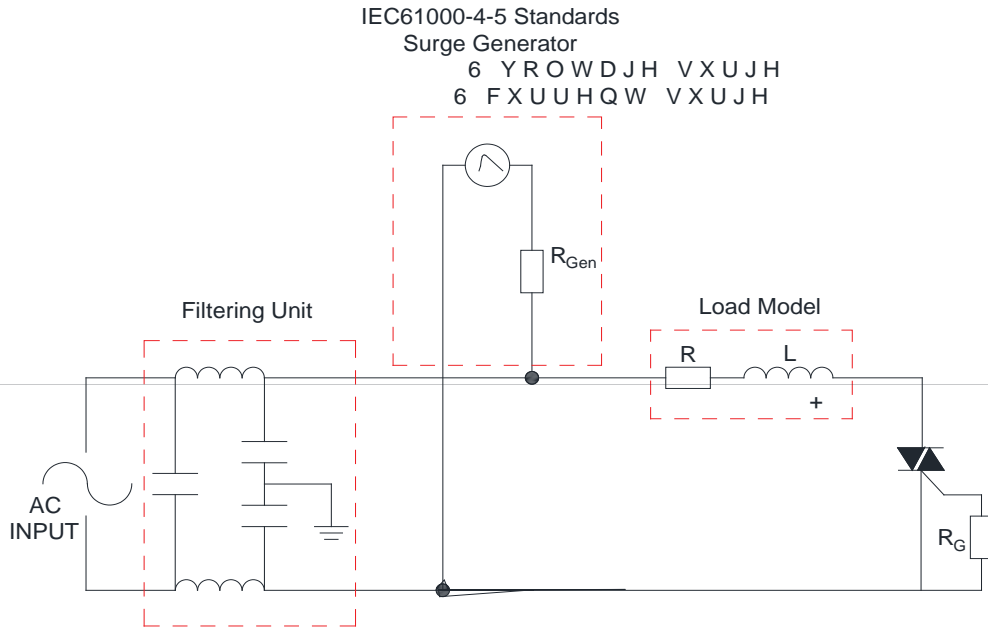


FIG.7 ÖTest circuit for inductive and resistive loads to IEC-61000-4-5 standards



ORDERING INFORMATION

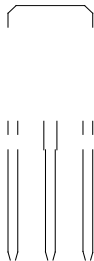
| Order code   | Voltage<br>V <sub>DRM</sub> /V <sub>RPM</sub> (V) | IGT(mA) | Package | Base qty.<br>(pcs) | Delivery<br>mode |
|--------------|---|---------|---------|--------------------|------------------|
|              |   | - -     |         |                    |                  |
| JST04H-800CW | 800   | 35      | TO-251  | 80                 | Tube             |

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Document Revision History

| Date | Revision | Changes |
|------|----------|---------|
|------|----------|---------|

PACKAGE MECHANICAL DATA



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