# JST08H-600CW 8A TRIAC

Rev.A.1.1

## DESCRIPTION:

The JST08H-600CW 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. JST08H-600CW 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 ) | $V_{DRM}$ | 600 | V |
| Repetitive peak reverse voltage ($T_j$=25 ) | $V_{RRM}$ | 600 | V |
| RMS on-state current ($T_C$ 091 ) | $I_{T(RMS)}$ | 8 | A |
| Non repetitive surge peak on-state current (full cycle , $t_p$=20ms , $T_j$=25 ) | $I_{TSM}$ | 80 | A |
| Non repetitive surge peak on-state current (full cycle , $t_p$=16.6ms , $T_j$ | | | |

| | | | |
|---|---|---|---|
| Peak pulse voltage ($T_j$=25 ; non-repetitive,off-state;FIG.7) | $V_{pp}$ | 2 | kV |

## ELECTRICAL CHARACTERISTICS ($T_j$=25 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 $R_L$ =3.3k | - - | MIN. | 0.2 | V |
| $I_L$ | $I_G$ =1.2$I_{GT}$ | - | MAX. | 50 | mA |
| | | | | 60 | |
| $I_H$ | $I_T$ =100mA | | MAX. | 35 | mA |
| dV/dt | $V_D$=400V Gate Open $T_j$ =125 | | MIN. | 1000 | V s |
| (dI/dt)c | (dV/dt)c=20V s, $T_j$=125 | | MIN. | 10 | A/ms |
| $t_{on}$ | $I_G$=40mA $I_A$=200mA $I_R$=20mA $T_j$=25 | | TYP. | 3 | s |
| $t_{off}$ | | | | 30 | |

## STATIC CHARACTERISTICS

| Symbol | Parameter | | Value(MAX .) | Unit |
|---|---|---|---|---|
| $V_{TM}$ | $I_{TM}$ =11A $t_p$=380 s | $T_j$=25 | 1.5 | V |
| $V_{TO}$ | Threshold voltage | $T_j$=125 | 0.8 | V |
| $R_D$ | Dynamic resistance | $T_j$=125 | 44 | P T2 |

## ORDERING INFORMATION

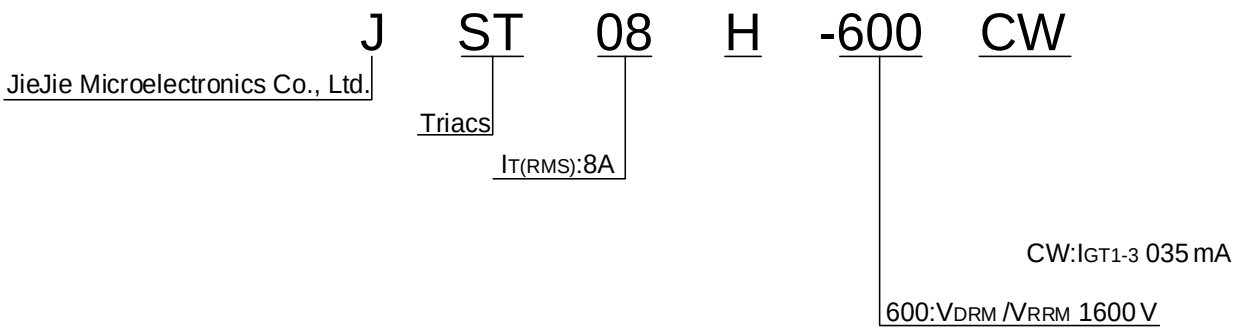


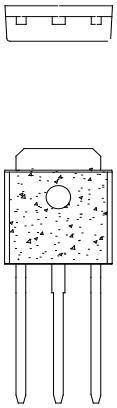
FIG.1: Maximum power dissipation versus RMS on-state current

FIG.2: RMS on-state current versus case temperature 02

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

JST08H-600CW

PACKAGE MECHANICAL DATA



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