## JST08C-800B 8A TRIAC

Rev.A.1.1

## DESCRIPTION:

The JST08C-800B 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. From T2 terminals to external heatsink. Package TO-220C is RoHS compliant.

## MAIN FEATURES

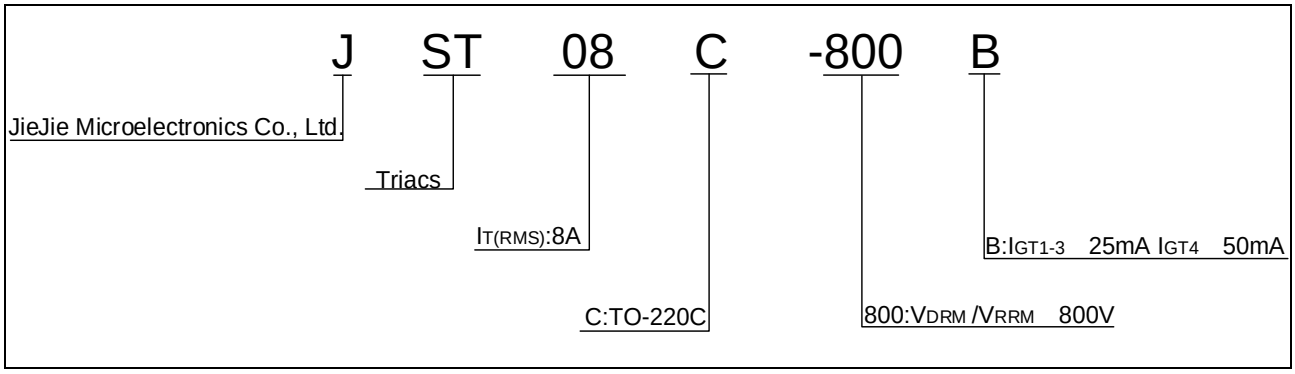
## ABSOLUTE MAXIMUM RATINGS

| 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 ) | | $V_{DRM}$ | 800 | V |
| Repetitive peak reverse voltage ($T_j$=25 ) | | $V_{RRM}$ | 800 | V |
| RMS on-state current ($T_C$ 108 ) | | $I_{T(RMS)}$ | 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 , $T_j$=25 ) | | | 88 | |
| $I^2t$ value for fusing ($t_p$=10ms , $T_j$=25 ) | | $I^2t$ | 32 | $A^2s$ |
| Critical rate of rise of on-state current ($I_G$=2 × $I_{GT}$ , f=100Hz , $T_j$=125 ) | - | dI/dt | 100 | A s |
| | - | | 50 | |
| Peak gate current ($t_p$=20 s , $T_j$=125 ) | | $I_{GM}$ | 4 | A |
| Average gate power dissipation ($T_j$=125 ) | | $P_{G(AV)}$ | 0.5 | W |
| Peak gate power | | $P_{GM}$ | 10 | W |
| Peak pulse voltage ($T_j$=25 ; non-repetitive,off-state;FIG.7) | | $V_{PP}$ | 1 | kV |

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

| Symbol | Test Condition | Quadrant | Value | | Unit |
|---|---|---|---|---|---|
| $I_{GT}$ | $V_D$=12V $R_L$=33 | - - | MAX. | 50 | mA |
| | | | | 70 | |
| $V_{GT}$ | | ALL | MAX. | 1 | V |
| $V_{GD}$ | $V_D$=$V_{DRM}$ $T_j$=125 $R_L$=3.3k | ALL | MIN. | 0.2 | V |
| $I_L$ | $I_G$=1.2$I_{GT}$ | - - | MAX. | 50 | mA |
| | | | | 100 | |
| $I_H$ | $I_T$=200mA | | MAX. | 60 | mA |
| dV/dt | $V_D$=540V Gate Open $T_j$=125 | | MIN. | 1000 | V s |
| (dV/dt)c | (dI/dt)c=3.5A/ms, $T_j$=125 | | MIN. | 12 | |

## ORDERING INFORMATION




## MARKING

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

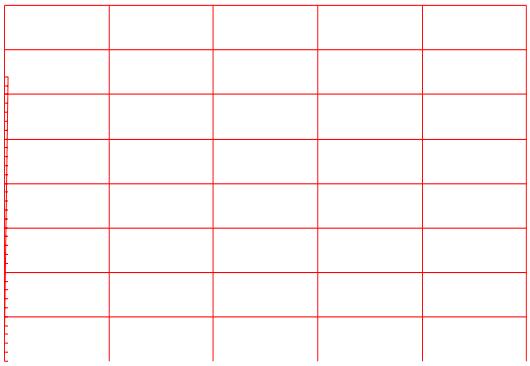


**FIG.2:** RMS on-state current versus case temperature

## ORDERING INFORMATION

| Order code | Voltage $V_{DRM}/V_{RRM}$ (V) | IGT(mA) | | Package | Base qty. (pcs) | Delivery mode |
|---|---|---|---|---|---|---|
| | | - - | | | | |
| JST08C-800B | 800 | 50 | 70 | TO-220C | 50 | Tube |

## PACKAGE MECHANICAL DATA

