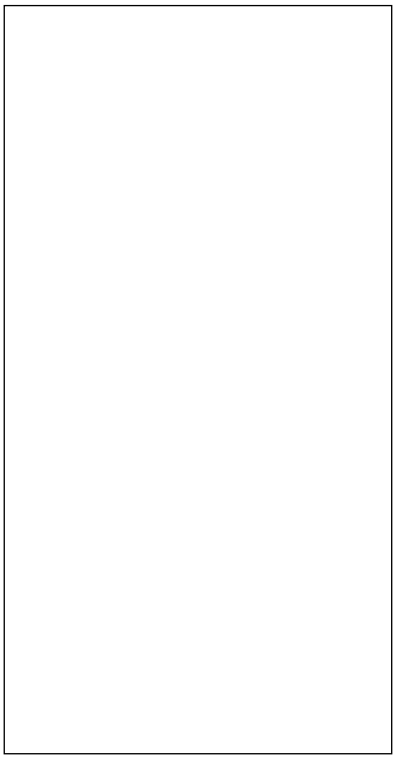
# JST25T-600CW 25A TRIAC

Rev.A.1.0

## DESCRIPTION:

The JST25T-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. JST25T-600CW snubberless triac is especially recommended for use on inductive loads. By using a DBC, JST25T-600CW provides a rated insulation voltage of 2500 VRMS, complying with UL standards
(File ref: E252906). Package TG-C is RoHS compliant.



## MAIN FEATURES

| Symbol | Value | Unit |
|---|---|---|
| $I_{T(RMS)}$ | 25 | A |
| $V_{DRM}$ /$V_{RRM}$ | 600 | V |
| $I_{GT}$ / / | 35/35/35 | mA |

## 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 ($T_C$ 090 ) | $I_{T(RMS)}$ | 25 | A |
| Non repetitive surge peak on-state current (full cycle , $t_p$=20ms , $T_j$=25 ) | $I_{TSM}$ | 250 | A |
| Non repetitive surge peak on-state current (full cycle , $t_p$=16.6ms , $T_j$=25 ) | | 275 | |
| $I^2t$ value for fusing ($t_p$=10ms , $T_j$=25 ) | $I^2t$ | 340 | $A^2s$ |
| Critical rate of rise of on-state current ($I_G$=2× $I_{GT}$ , f=100Hz , $T_j$=125 ) | dI/dt | 100 | A s |
| 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) | $V_{pp}$ | 2.5 | kV |

## ELECTRICAL CHARACTERISTICS (Tj=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. | 70 | mA |
| | | | | 80 | |
| $I_H$ | $I_T$ =500mA | | MAX. | 50 | mA |
| dV/dt | $V_D$=400V Gate Open $T_j$=125 | | MIN. | 1500 | V s |
| (dI/dt)c | (dV/dt F 9 )=12 5 | | MIN. | 15 | A/ms |

ORDERING INFORMATION

J ST 25 T -600

PACKAGE MECHANICAL DATA



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