



## JST16F-600TW 16A TRIAC

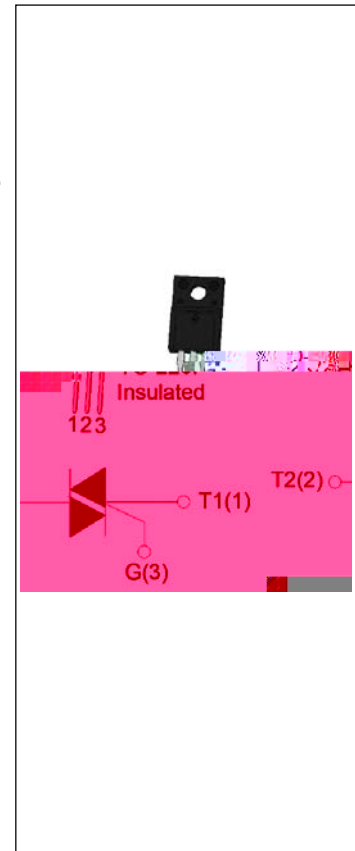
Rev.A.1.1

### DESCRIPTION:

The JST16F-600TW 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. JST16F-600TW snubberless triac is especially recommended for use on inductive loads. It can be driven directly through the MCU I/O port. By using an external plastic package, JST16F-600TW provides a rated insulation voltage of 2000 VRMS, complying with UL standards (File ref: E252906). Package TO-220F is RoHS compliant.

### MAIN FEATURES

| Symbol            | Value | Unit |
|-------------------|-------|------|
| $I_{T(RMS)}$      | 16    | A    |
| $V_{DRM}/V_{RRM}$ | 600   | V    |
| $I_{GT} / /$      | 5/5/5 | 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 ( $T_j=25^\circ\text{C}$ )                                                     | $V_{DRM}$    | 600     | V                      |
| Repetitive peak reverse voltage ( $T_j=25^\circ\text{C}$ )                                                       | $V_{RRM}$    | 600     | V                      |
| RMS on-state current ( $T_c 073^\circ\text{C}$ )                                                                 | $I_{T(RMS)}$ | 16      | A                      |
| Non repetitive surge peak on-state current (full cycle, $t_p=20\text{ms}$ , $T_j=25^\circ\text{C}$ )             | $I_{TSM}$    | 160     | A                      |
| Non repetitive surge peak on-state current (full cycle, $t_p=16.6\text{ms}$ , $T_j=25^\circ\text{C}$ )           |              | 176     |                        |
| $I^2t$ value for fusing ( $t_p=10\text{ms}$ , $T_j=25^\circ\text{C}$ )                                           | $I^2t$       | 128     | $\text{A}^2\text{s}$   |
| Critical rate of rise of on-state current ( $I_G=2\text{hI}_{GT}$ , $f=100\text{Hz}$ , $T_j=125^\circ\text{C}$ ) | $di/dt$      | 50      | $\text{A}/\mu\text{s}$ |
| Peak gate current ( $t_p=20\mu\text{s}$ , $T_j=125^\circ\text{C}$ )                                              | $I_{GM}$     | 4       | A                      |

JST16F-600TW



JieJie Microelectronics Co., Ltd.

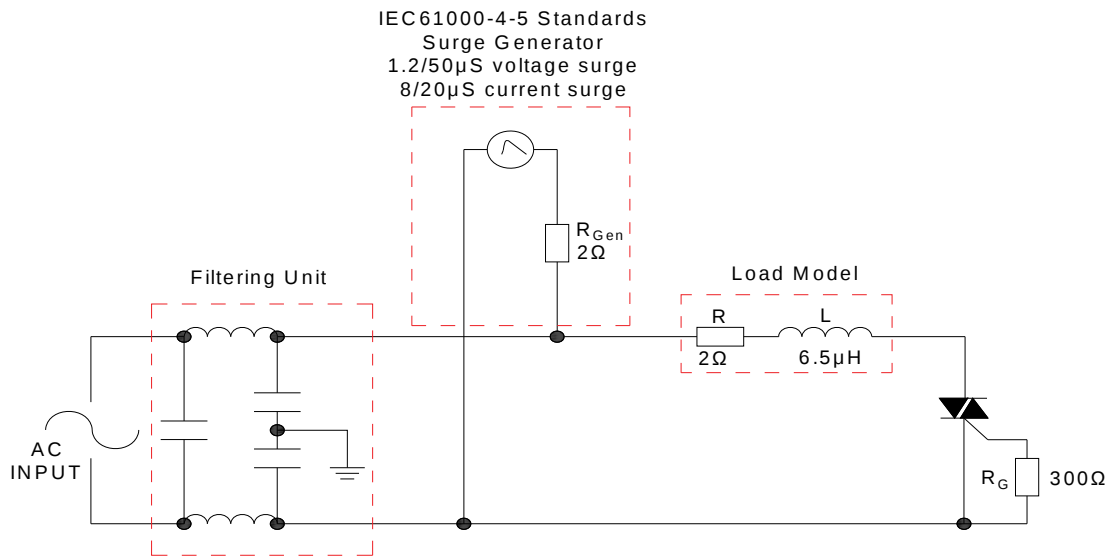
|                                                       |                    |     |   |
|-------------------------------------------------------|--------------------|-----|---|
| Average gate power dissipation (T <sub>j</sub> =125 ) | P <sub>G(AV)</sub> | 0.5 | W |
| Peak gate power                                       | P <sub>GM</sub>    |     |   |
|                                                       |                    |     |   |

ORDERING INFORMATION

\_\_\_\_\_ J   ST   16   F   -600   TW

**JST16F-600TW**

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



## LEAD FORMING AND SOLDERING

Refer to the application note “Assembly Instructions for Thyristors in Through-hole Package” released by JieJie  
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## ORDERING INFORMATION

| Order code   | Voltage<br>$V_{\text{DRM}}/V_{\text{RRM}}$ (V) | IGT(mA) | Package      | Base qty.<br>(pcs) | Delivery<br>mode |
|--------------|------------------------------------------------|---------|--------------|--------------------|------------------|
|              |                                                | - -     |              |                    |                  |
| JST16F-600TW | 600                                            | 5       | TO-220F(Ins) | 50                 | Tube             |

## Document Revision History

| Date         | Revision | Changes                        |
|--------------|----------|--------------------------------|
| Apr.12, 2023 | A.1.0    | Last updated                   |
| Oct.13, 2025 | A.1.1    | Revise PACKAGE MECHANICAL DATA |



