



JST137D-600D 8A TRIAC

Rev.A.1.1

DESCRIPTION:

The JST137D-600D 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. Package TO-262 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} | 600 | V |
| Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$) | V_{RRM} | 600 | V |
| RMS on-state current ($T_c=100^\circ\text{C}$) | $I_{T(RMS)}$ | 8 | A |
| Non repetitive surge peak on-state current (full cycle, $t_p=20\text{ms}$, $T_j=25^\circ\text{C}$) | I_{TSM} | 65 | A |
| Non repetitive surge peak on-state current (full cycle, $t_p=16.6\text{ms}$, $T_j=25^\circ\text{C}$) | | 72 | |
| I^2t value for fusing ($t_p=10\text{ms}$, $T_j=25^\circ\text{C}$) | I^2t | 21 | A^2s |

Critical rate of rise of on-state current $\frac{di}{dt}$
 ($I_G=2I_{GT}$, $f=100\text{Hz}$, $T_j=125^\circ\text{C}$)

ELECTRICAL CHARACTERISTICS (T_j=25 unless otherwise specified)

| Symbol | Test Condition | Quadrant | Value | | Unit |
|----------------------|---|----------|-------|-----|------|
| I _{GT} | V _D =12V R _L =33 | - - | MAX. | 5 | mA |
| | | | | 10 | |
| 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 =1.2I _{GT} | - - | MAX. | 15 | mA |
| | | | | 20 | |
| I _H | I _T =500mA | | MAX. | 10 | mA |
| dV/dt | V _D =400V Gate Open T _j =125 | | MIN. | 80 | V s |
| (dV/dt) _c | (dI/dt) _c =2.7A/ms, T _j =125 | | MIN. | 2 | 9 V |
| t _{on} | I _G =20mA I _A =200mA I _R =20mA T _j =25 | | TYP. | 1.2 | s |
| t _{off} | | | | 15 | |

STATIC CHARACTERISTICS

Symbol

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

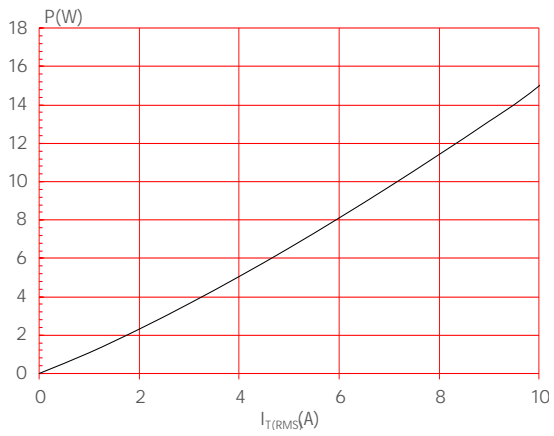
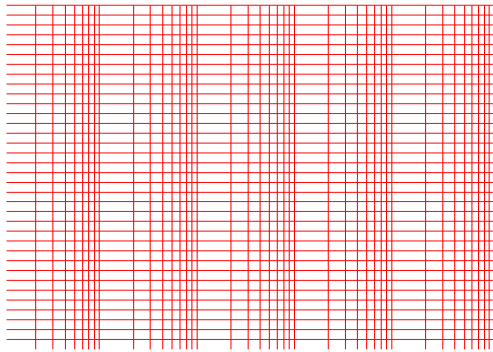


FIG.2: RMS on-state current versus case temperature

FIG.3: Surge peak on-state current versus number of cycles



ORDERING INFORMATION

| Order code | Voltage V_{DRM}/V_{RRM} (V) | IGT(mA) | | Package | Base qty. (pcs) | Delivery mode |
|--------------|----------------------------------|---------|----|---------|--------------------|---------------|
| | | - | - | | | |
| JST137D-600D | 600 | 5 | 10 | TO-262 | 50 | Tube |

Document Revision History

| Date |
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