# JST131W-600D 1A TRIAC

Rev.A.1.1

## DESCRIPTION:

The JST131W-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 SOT-223-2L 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 ($T_C$ 098 ) | $I_{T(RMS}$ | | |

## 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. | 1.3 | 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. | 5 | mA |
| | | | | 20 | |
| $I_H$ | $I_T$=50mA | | MAX. | 7 | mA |
| dV/dt | $V_D$=400V Gate Open $T_j$=110 | | MIN. | 120 | V s |
| (dV/dt)c | (dI/dt)c=0.44A/ms, $T_j$=110 | | MIN. | 3 | 9 -01 |

## ORDERING INFORMATION

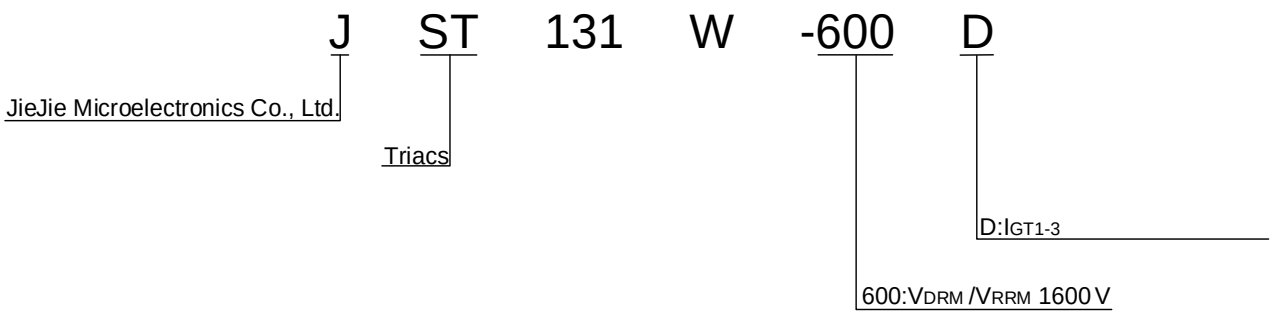


FIG.1: Maximum power dissipation versus RMS on-state current

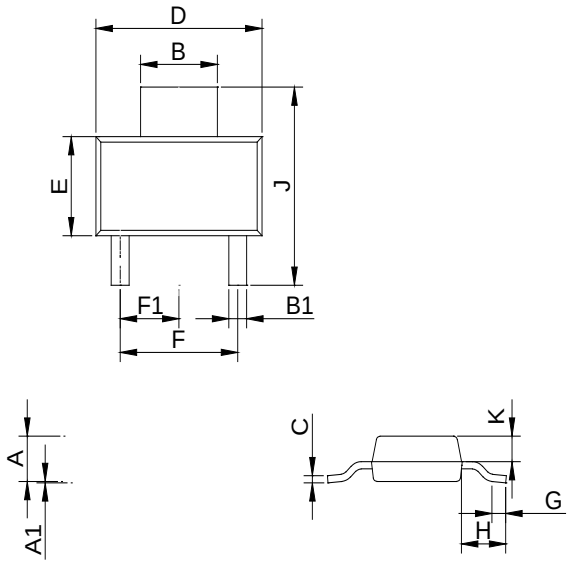
FIG.2: RMS on-state current versus case temperature

JST131W-600D

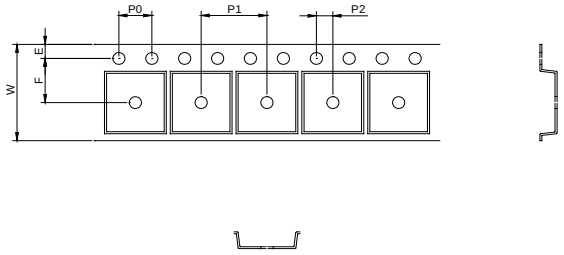
## ORDERING INFORMATION

| Order code | Voltage $V_{DRM}/V_{RRM}$ (V) | IGT(mA) | | Package | Base qty. (pcs) | Delivery mode |
|---|---|---|---|---|---|---|
| | | H- I- J | K | | | |
| JST131W-600D | 600 | 5 | 10 | SOT-223 | | |

## PACKAGE MECHANICAL DATA



DELIVERY MODE " - P L Q• 16.72±0.5 2±0.3 0.




| Ref. | Dimensions | | | | | |
|---|---|---|---|---|---|---|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| W | - | | 12.30 | - | | 0.482 |
| E | 1.65 | 1.75 | 1.85 | 0.065 | 0.069 | 0.073 |
| F | 5.45 | 5.50 | 5.55 | 0.215 | 0.217 | 0.219 |
| D0 | | 1.55 | 1.60 | | 0.061 | 0.063 |
| D1 | | - | - | | | |
| P0 | 3.90 | 4.00 | 4.10 | 0.154 | 0.157 | 0.161 |
| P1 | 7.90 | 8.00 | 8.10 | 0.311 | 0.315 | 0.319 |
| P2 | 1.95 | 2.00 | 2.05 | 0.077 | 0.079 | 0.081 |
| 10P0 | 39.80 | 40.00 | 40.20 | 1.567 | 1.575 | 1.583 |
| A0 | 6.85 | 6.95 | 7.05 | 0.269 | 0.273 | 0.276 |
| B0 | 7.15 | 7.25 | 7.35 | 0.280 | 0.284 | 0.288 |
| K0 | 1.95 | 2.05 | 2.15 | 0.076 | 0.080 | 0.084 |
| T | 0.20 | 0.25 | 0.30 | 0.008 | 0.010 | 0.012 |