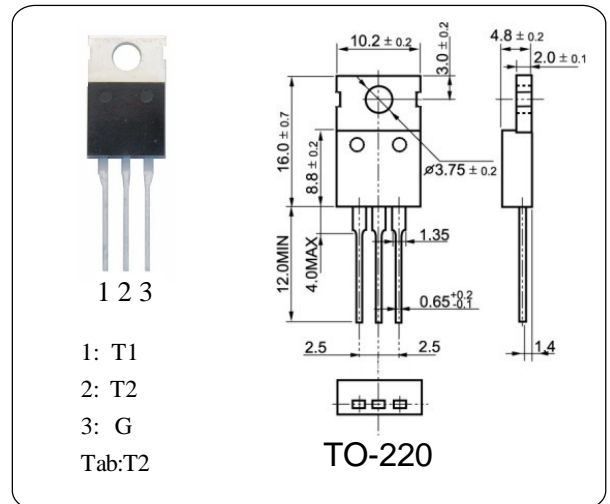


**Triacs logic level**
**BT137-600**
**GENERAL DESCRIPTION**

Passivated, sensitive gate triac in a plastic envelope, intended for use in general purpose bidirectional switching and phase control applications. This device is intended to be interfaced directly to microcontrollers, logic integrated circuits and other low power gate trigger circuits.

**ABSOLUTE MAXIMUM RATINGS ( Ta = 25°C )**

| Parameter                            | Symbol                 | Typ     | Unit |
|--------------------------------------|------------------------|---------|------|
| Repetitive peak off-state voltages   | $V_{DRM}$<br>$V_{RRM}$ | 600     | V    |
| RMS on-state current                 | $I_{T(RMS)}$           | 8.0     | A    |
| Non-repetitive peak on-state current | $I_{TSM}$              | 65      | A    |
| Max. Operating Junction Temperature  | $T_j$                  | 110     | °C   |
| Storage Temperature                  | $T_{stg}$              | -45~150 | °C   |


**ELECTRICAL CHARACTERISTICS ( Ta = 25°C )**

| Parameter                          | Symbol                 | Test Conditions                           | Min | Typ | Max  | Unit |
|------------------------------------|------------------------|---|-----|-----|------|------|
| Repetitive peak off-state voltages | $V_{DRM}$<br>$V_{RRM}$ | $I_D=0.1mA$                               | 600 | —   | —    | V    |
| RMS on-state current               | $I_{T(RMS)}$           | full sine wave; $T_{mb} \leq 107^\circ C$ | —   | 8.0 | —    | A    |
| On-state voltage                   | $V_T$                  | $I_T=10A$                                 | —   | 1.3 | 1.65 | V    |
| Holding current                    | $I_H$                  | $V_D = 12 V; I_{GT} = 0.1 A$              | —   | 2.5 | 20   | mA   |
| Gate trigger current               | T2+G+                  | $I_{GT}$<br>$V_D = 12 V; I_T = 0.1 A$     | —   | 2.5 | 10   | mA   |
|                                    | T2+G-                  |   | —   | 4.0 | 10   |      |
|                                    | T2-G-                  |   | —   | 5.0 | 10   |      |
|                                    | T2-G+                  |   | —   | 11  | 25   |      |
| Latching current                   | T2+G+                  | $I_L$<br>$V_D = 12 V; I_{GT} = 0.1 A$     | —   | 3.0 | 25   | mA   |
|                                    | T2+G-                  |   | —   | 14  | 35   |      |
|                                    | T2-G-                  |   | —   | 3.0 | 25   |      |
|                                    | T2-G+                  |   | —   | 4.0 | 35   |      |
| Gate trigger voltage               | $V_{GT}$               | $V_D = 12 V; I_T = 0.1 A$                 | —   | 0.7 | 1.5  | V    |