

**Triacs sensitive gate**

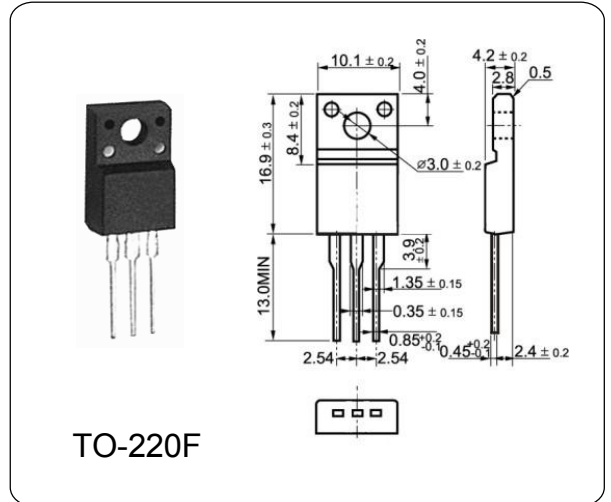
**BT138X-600G**

**GENERAL DESCRIPTION**

Passivated, sensitive gate triacs in a plastic envelope, intended for use in general purpose bidirectional switching and phase control applications, where high sensitivity is required in all four quadrants.TIGERR

**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                 | $I_{T(RMS)}$           | 12      | A    |
| Non-repetitive peak on-state current | $I_{TSM}$              | 95      | 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>$V_{RRM}$ |                                      | —   | 600 | —    | V    |
| RMS on-state current               |       | $I_{T(RMS)}$           | full sine wave; $T_{mb} \leq 107$ °C | —   | 12  | —    | A    |
| On-state voltage                   |       | $V_T$                  | $I_T = 15A$                          | —   | 1.4 | 1.65 | V    |
| Holding current                    |       | $I_H$                  | $V_D = 12 V$ ; $I_{GT} = 0.1 A$      | —   | —   | 60   | mA   |
| Gate trigger current               | T2+G+ | $I_{GT}$               | $V_D = 12 V$ ; $I_T = 0.1 A$         | —   | —   | 50   | mA   |
|                                    | T2+G- |                        |                                      | —   | —   | 50   |      |
|                                    | T2-G- |                        |                                      | —   | —   | 50   |      |
|                                    | T2-G+ |                        |                                      | —   | —   | 100  |      |
| Latching current                   | T2+G+ | $I_L$                  | $V_D = 12 V$ ; $I_{GT} = 0.1 A$      | —   | —   | 60   | mA   |
|                                    | T2+G- |                        |                                      | —   | —   | 90   |      |
|                                    | T2-G- |                        |                                      | —   | —   | 60   |      |
|                                    | T2-G+ |                        |                                      | —   | —   | 90   |      |
| Gate trigger voltage               |       | $V_{GT}$               | $V_D = 12 V$ ; $I_T = 0.1 A$         | —   | 0.7 | 1.5  | V    |