# T1235H-6C 12A TRIAC

Rev.A.1.1

## DESCRIPTION:

The T1235H-6C 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,

| | | | |
|---|---|---|---|
| Peak pulse voltage ($T_j$=25 ; non-repetitive,off-state;FIG.7) | $V_{pp}$ | 4.5 | kV |

## ELECTRICAL CHARACTERISTICS ($T_j$=25 unless otherwise specified)

| Symbol | Test Condition | Quadrant | Value | | Unit |
|---|---|---|---|---|---|
| $I_{GT}$ | $V_D$ =12V $R_L$ =33Ω | - - | MAX. | 35 | mA |
| $V_{GT}$ | | - - | MAX. | 1 | V |
| $V_{GD}$ | $V_D$ =$V_{DRM}$ $T_j$ =150 $R_L$ =3.3kΩ | - - | MIN. | 0.2 | V |
| $I_L$ | $I_G$ =1.2$I_{GT}$ | - | MAX. | 30 | mA |
| | | | | 60 | |
| $I_H$ | $I_T$ =500mA | | MAX. | 30 | mA |
| dV/dt | $V_D$=400V Gate Open $T_j$ =150 | | MIN. | 600 | V/μs |
| (dI/dt)c | (dV/dt)c=20V/μs, $T_j$=150 | | MIN. | 5 | A/ms |
| $t_{on}$ | $I_G$=40mA $I_A$=200mA $I_R$=20mA $T_j$=25 | | TYP. | 3 | μs |
| $t_{off}$ | | | | 60 | |

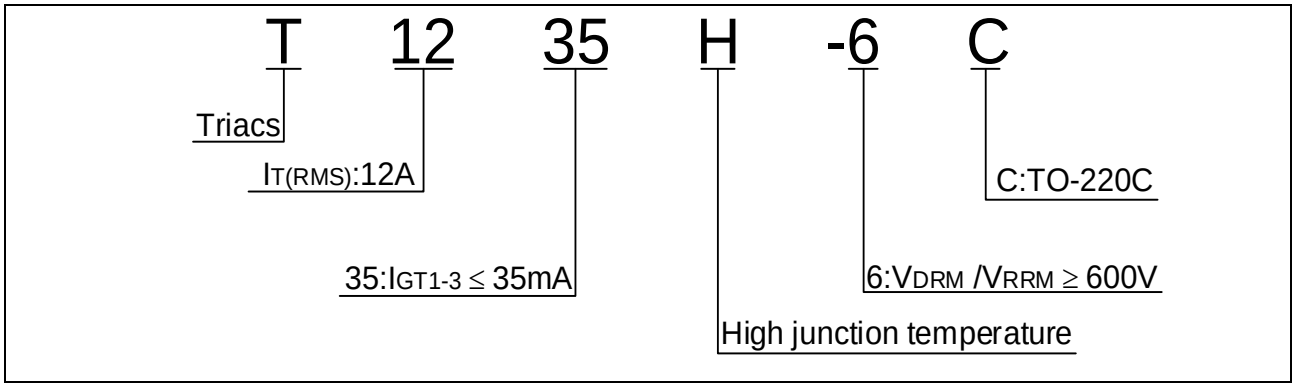
## STATIC CHARACTERISTICS

| Symbol | Parameter | | Value(MAX.) | Unit |
|---|---|---|---|---|
| $V_{TM}$ | $I_{TM}$ =17A $t_p$=380μs | $T_j$=25 | 1.4 | V |
| $V_{TO}$ | Threshold voltage | $T_j$=150 | 0.75 | V |
| $R_D$ | Dynamic resistance | $T_j$=150 | 37 | mΩ |
| $I_{DRM}$ | $V_D$ =$V_{DRM}$ $V_R$ =$V_{RRM}$ | $T_j$=25 | 5 | μA |
| $I_{RRM}$ | | $T_j$=150 | 1.5 | mA |

## THERMAL RESISTANCES

| Symbol | Parameter | Value | Unit |
|---|---|---|---|
| $R_{th(j-c)}$ | junction to case (AC) | 1.2 | /W |
| $R_{th(j-a)}$ | junction to ambient (AC) | 60 | /W |

## ORDERING INFORMATION




## MARKING

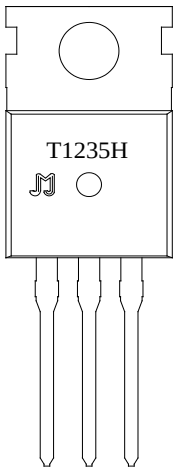


**FIG.1:** Maximum power dissipation versus RMS on-state current

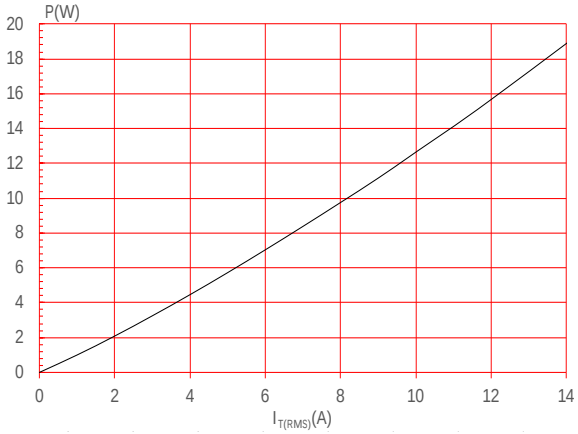



**FIG.2:** RMS on-state current versus case temperature

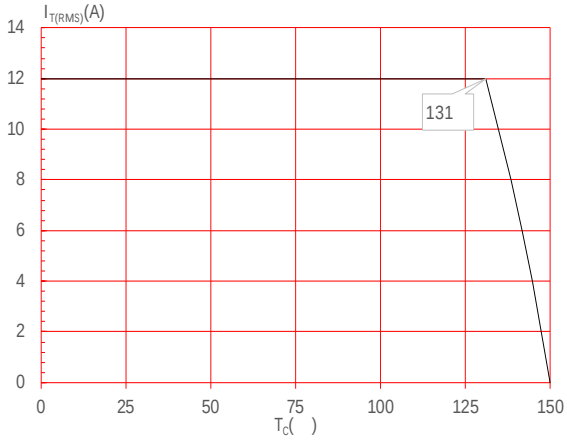



**FIG.3:** Surge peak on-state current versus number of cycles

**FIG.4:** On-state characteristics

# T1235H-6C

## ORDERING INFORMATION

| Order code | Voltage $V_{DRM}/V_{RRM}$ (V) | IGT(mA) | Package | Base qty. (pcs) | Delivery mode |
|---|---|---|---|---|---|
| | | - - | | | |
| T1235H-6C | 600 | 35 | TO-220C | 50 | Tube |

### Document Revision History

| Date | Revision | Changes |
|---|---|---|
| Apr.11, 2023 | A.1.0 | Last updated |
| Oct.14, 2025 | A.1.1 | Revise PACKAGE MECHANICAL DATA |

## PACKAGE MECHANICAL DATA

