# T1250H-8A 12A TRIAC

Rev.A.1.1

## DESCRIPTION:

The T1250H-8A 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. Compared to traditional triacs, T1250H-8A provides a very high switching capability up to junction temperatures of 150°C. By using an internal ceramic pad, T1250H-8A provides a rated insulation voltage of 2500 VRMS, complying with UL standards (File ref: E252906). Package TO-220A is RoHS compliant.

## MAIN FEATURES

## ABSOLUTE MAXIMUM RATINGS

[redacted]emperNur

| | | | |
|---|---|---|---|
| Average gate power dissipation ($T_j$=150 ) | $P_{G(AV)}$ | 1 | W |
| Peak gate power | $P_{GM}$ | 10 | W |
| Peak pulse voltage ($T_j$=25 ; non-repetitive,off-state;FIG.7) | $V_{pp}$ | 4.5 | kV |

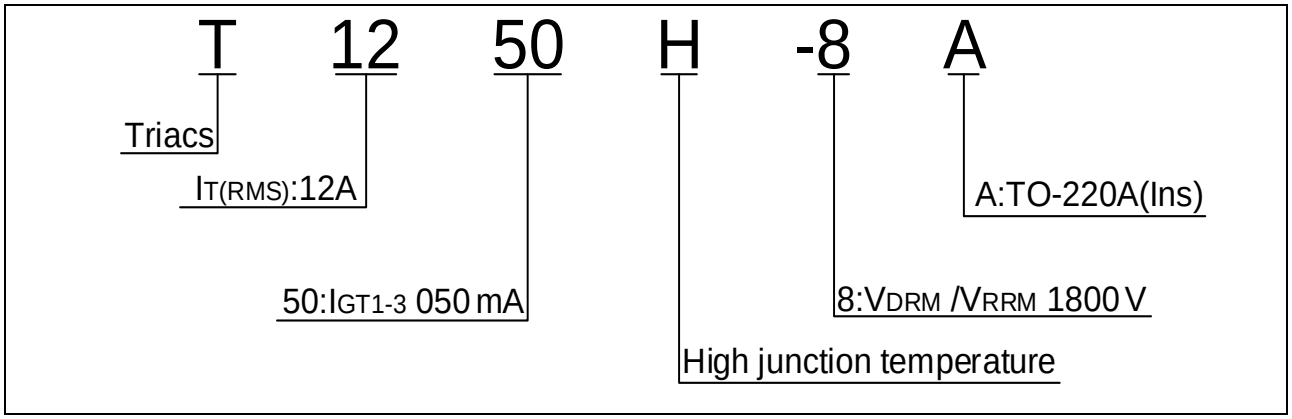
## ELECTRICAL CHARACTERISTICS ($T_j$=25 unless otherwise specified)

| Symbol | Test Condition | Quadrant | Value | | Unit |
|---|---|---|---|---|---|
| $I_{GT}$ | $V_D$ =12V $R_L$ =33 | - - | MAX. | 50 | mA |
| $V_{GT}$ | | - - | MAX. | 1 | V |
| $V_{GD}$ | $V_D$ =$V_{DRM}$ $T_j$ =150 $R_L$ =3.3k | - - | MIN. | 0.2 | V |
| $I_L$ | $I_G$ =1.2$I_{GT}$ | - | MAX. | 50 | mA |
| | | | | 80 | |
| $I_H$ | $I_T$ =500mA | | MAX. | 40 | mA |
| dV/dt | $V_D$=540V Gate Open $T_j$ =150 | | MIN. | 2000 | V s |
| (dI/dt)c | G 9 G W F j=9150V 7 | | MIN. | 10 | A/ms |
| $t_{on}$ | $I_G$=80mA $I_A$=400mA $I_R$=40mA $T_j$=25 | | TYP. | 3 | s |
| $t_{off}$ | | | | 70 | |

## STATIC CHARACTERISTICS

| Symbol | Parameter | Value(MAX .) | Unit |
|---|---|---|---|
| $V_{TM}$ | I | | |

## ORDERING INFORMATION




## MARKING

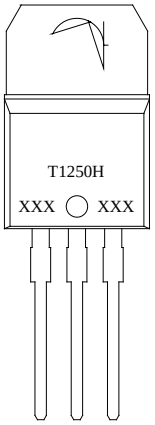


FIG.1: Maximum power dissipation versus RMS on-state current

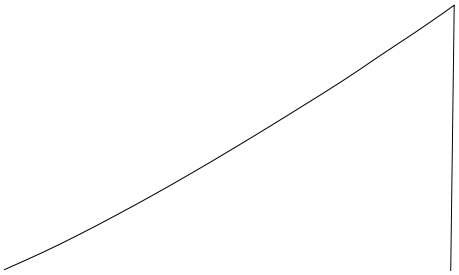


FIG.2: RMS on-state current versus case temperature

FIG.7 ÖTest circuit for inductive and resistive loads to IEC-61000-4-5 standards



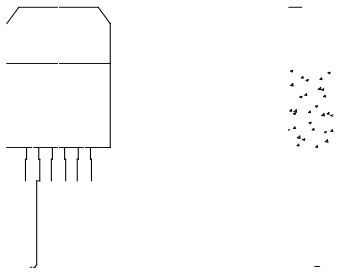
## ORDERING INFORMATION

| Order code | Voltage $V_{DRM}/V_{RRM}$ (V) | IGT(mA) | Package | Base qty. (pcs) | Delivery mode |
|---|---|---|---|---|---|
| | | - - | | | |
| T1250H-8A | 800 | 50 | TO-220A(Ins) | 50 | Tube |

Document Revision History

| Date | Revision | Changes |
|---|---|---|
| Apr.11, 2023 | A.1.0 | Last updated |
| Oct.11, 2025 | | |

PACKAGE MECHANICAL DATA



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