# T1250H-8E 12A TRIAC

Rev.A.1.0

## DESCRIPTION:

The T1250H-8E triac is suitable for general purpose AC switching. It can be used as an ON/OFF function in

| | | | |
|---|---|---|---|
| Peak pulse voltage ($T_j$=25 ; non-repetitive,off-state;FIG.8) | $V_{pp}$ | 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 |
|---|---|---|---|---|
| $V_{TM}$ | $I_{TM}$ =17A $t_p$=380 s | $T_j$=25 | 1.4 | V |
| $V_{TO}$ | Threshold voltage | $T_j$=150 | 0.75 | V |
| $R_D$ | Dynamic resistance | $T_j$=150 | 37 | P |
| $I_{DRM}$ | $V_D$ =$V_{DRM}$ $V_R$ =$V_{RRM}$ | $T_j$=25 | 5 | A |
| $I_{RRM}$ | | $T_j$=150 | 2 | mA |

## THERMAL RESISTANCES

| Symbol | Parameter | Value | Unit |
|---|---|---|---|
| $R_{th(j-c)}$ | junction to case (AC) | 1.3 | /W |
| $R_{th(j-a)}$ | junction to ambient (AC, in free air, S=2cm$^2$) | 45 | /W |

## ORDERING INFORMATION

T 12 50 H -8 E -/

- T: Triacs
- 12: $I_{T(RMS)}$:12A
- 50: $I_{GT1-3}$ 050 mA
- H: High junction temperature
- -8: $V_{DRM}$ /$V_{RRM}$ 1800 V
- E: TO-263
- -/: Blank:Tube; -TR:Tape & Reel

## MARKING

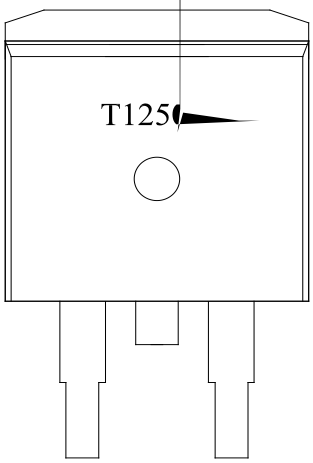


FIG.1 Maximum power dissipation versus RMS on-state current

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

FIG.7: Relative variations of gate trigger current, holding current and latching current versus junction temperature

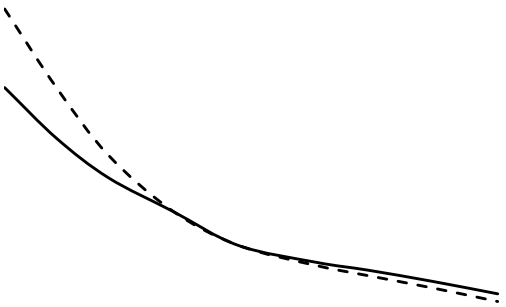
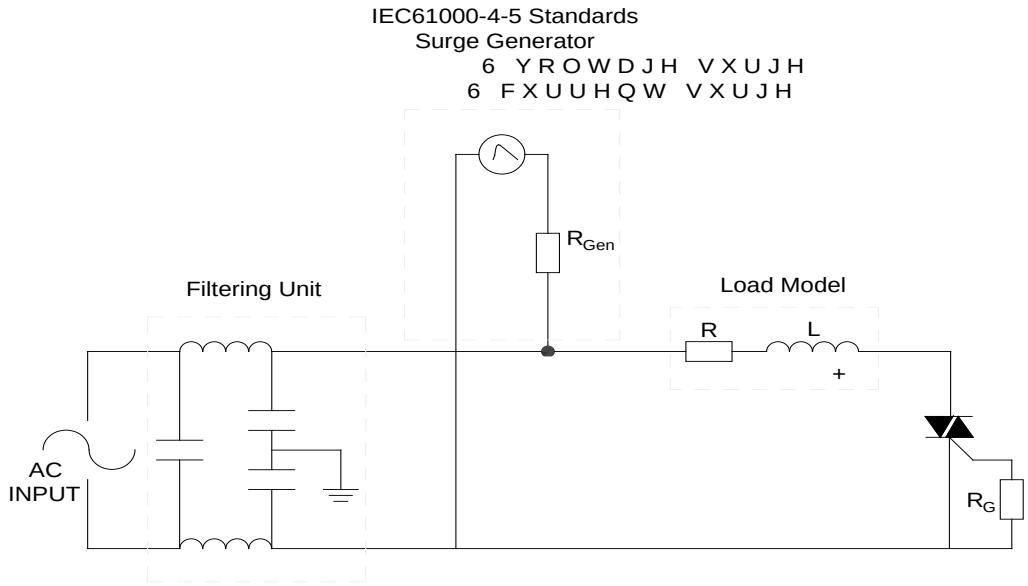


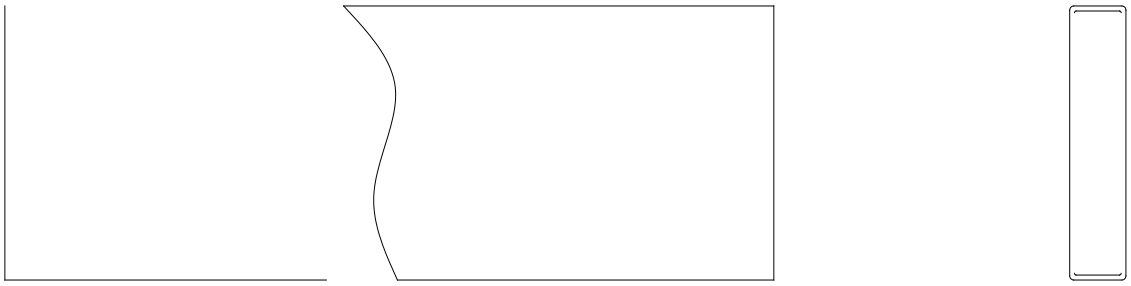
FIG.8 ÖTest circuit for inductive and resistive loads to IEC-61000-4-5 standards



## ORDERING INFORMATION

| Order code | Voltage |
| --- | --- |
| | 5 |

DELIVERY MODE



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