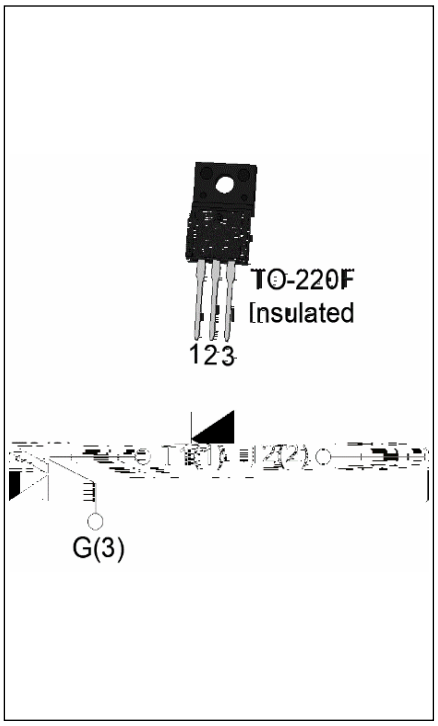
## JST12F-800B 12A TRIAC

Rev.A.1.1

### DESCRIPTION:

The JST12F-800B 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. By using an external plastic package, JST12F-800B provides a rated insulation voltage of 2000 VRMS, complying with UL standards (File ref: E252906). Package TO-220F is RoHS compliant.




### MAIN FEATURES

| | | |
|---|---|---|
| $I_{T(RMS)}$ | 12 | A |
| $V_{DRM}/V_{RRM}$ | 800 | V |
| $I_{GT}$ / / / | 50/50/50/70 | mA |

### ABSOLUTE MAXIMUM RATINGS

| Parameter | | Symbol | Value | Unit |
|---|---|---|---|---|
| Storage junction temperature range | | $T_{stg}$ | -40-150 | |
| Operating junction temperature range | | $T_j$ | -40-125 | |
| Repetitive peak off-state voltage ($T_j$=25 ) | | $V_{DRM}$ | 800 | V |
| Repetitive peak reverse voltage ($T_j$=25 ) | | $V_{RRM}$ | 800 | V |
| RMS on-state current ($T_C$ 085 ) | | $I_{T(RMS)}$ | 12 | A |
| Non repetitive surge peak on-state current (full cycle , $t_p$=20ms , $T_j$=25 ) | | $I_{TSM}$ | 120 | A |
| Non repetitive surge peak on-state current (full cycle , $t_p$=16.6ms , $T_j$=25 ) | | | 132 | |
| $I^2t$ value for fusing ($t_p$=10ms , $T_j$=25 ) | | $I^2t$ | 72 | $A^2s$ |
| Critical rate of rise of on-state current ($I_G$=2 hI GT , f=100Hz , $T_j$=125 ) | - | dI/dt | 100 | A/µs |
| | - | | 5 0 | |
| Peak gate current ($t_p$=20µs , $T_j$=125 ) | | $I_{GM}$ | 4 | A |
| Average gate power dissipation ($T_j$=125 ) | | $P_{G(AV)}$ | 0.5 | W |
| Peak gate power | | $P_{GM}$ | 10 | W |

S

Peak pulse voltage
($T_j$=25

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

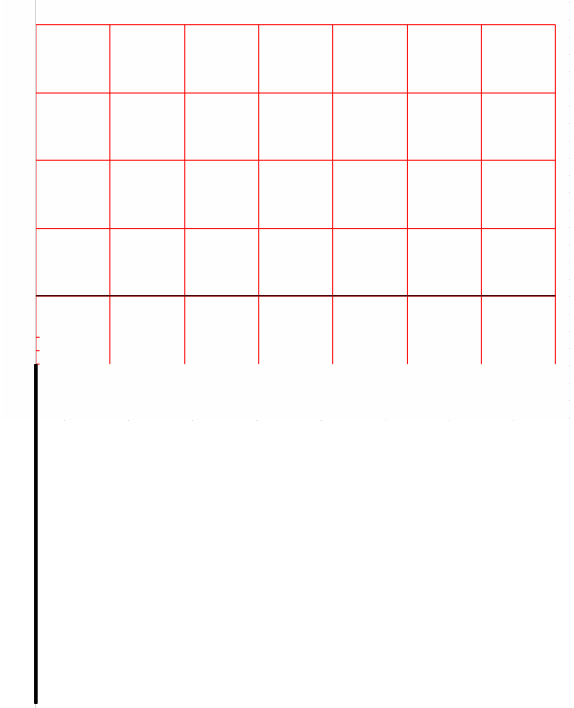
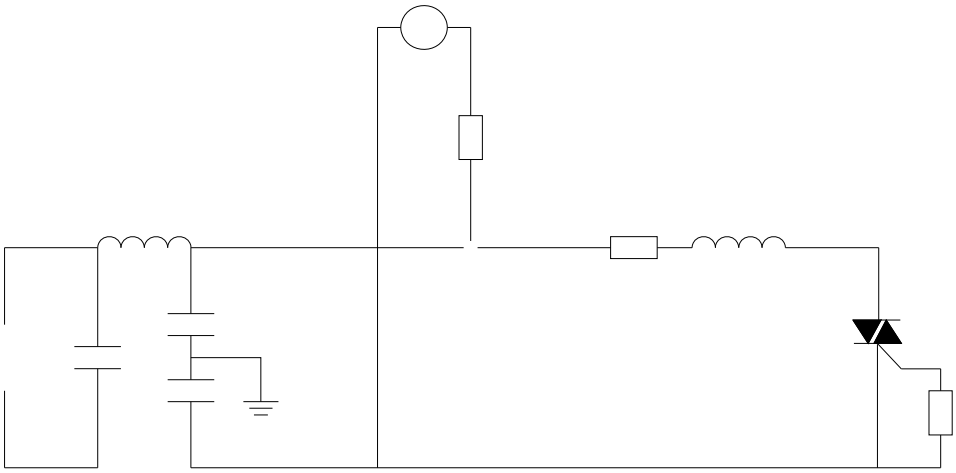


**FIG.2:** RMS on-state current versus case temperature X—Ó€ 4 T Ü P!YfP • ` }8 0 ? S• 4 T

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



## PACKAGE MECHANICAL DATA



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