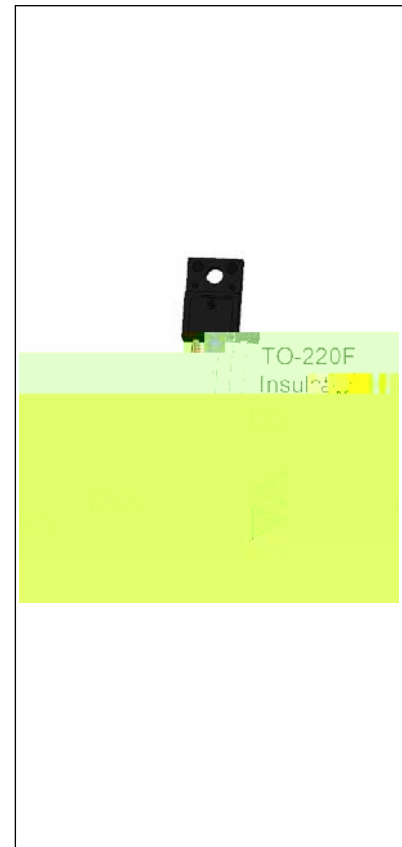




JST30F-1200BW 30A TRIAC

Rev.A.1.1

The JST30F-1200BW 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. JST30F-1200BW snubberless triac is especially recommended for use on inductive loads. By using an external plastic package, JST30F-1200BW provides a rated insulation voltage of 2000 VRMS, complying with UL standards (File ref: E252906). Package TO-220F is RoHS compliant.



| Symbol | Value | Unit |
|-------------------|----------|------|
| $I_{T(RMS)}$ | 30 | A |
| V_{DRM}/V_{RRM} | 1200 | V |
| $I_{GT} / /$ | 50/50/50 | mA |

| 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 ($T_j=25^\circ C$) | V_{DRM} | 1200 | V |
| Repetitive peak reverse voltage ($T_j=25^\circ C$) | V_{RRM} | 1200 | V |
| RMS on-state current ($T_c = 71^\circ C$) | $I_{T(RMS)}$ | 30 | A |
| Non repetitive surge peak on-state current (full cycle, $t_p=20ms$, $T_j=25^\circ C$) | I_{TSM} | 300 | A |
| Non repetitive surge peak on-state current (full cycle, $t_p=16.6ms$, $T_j=25^\circ C$) | | 330 | |
| I^2t value for fusing ($t_p=10ms$, $T_j=25^\circ C$) | I^2t | 450 | A^2s |
| Critical rate of rise of on-state current ($I_G=2 \times I_{GT}$, $f=100Hz$, $T_j=125^\circ C$) | di/dt | 100 | $A/\mu s$ |
| Peak gate current ($t_p=20\mu s$, $T_j=125^\circ C$) | I_{GM} | 4 | A |

JST30F-1200BW

| | | | |
|---|-------------|-----|---|
| Average gate power dissipation ($T_j=125$) | $P_{G(AV)}$ | 0.5 | W |
| Peak gate power | P_{GM} | 10 | W |
| Peak pulse voltage ($T_j=25$; non-repetitive, of s z) | | | |

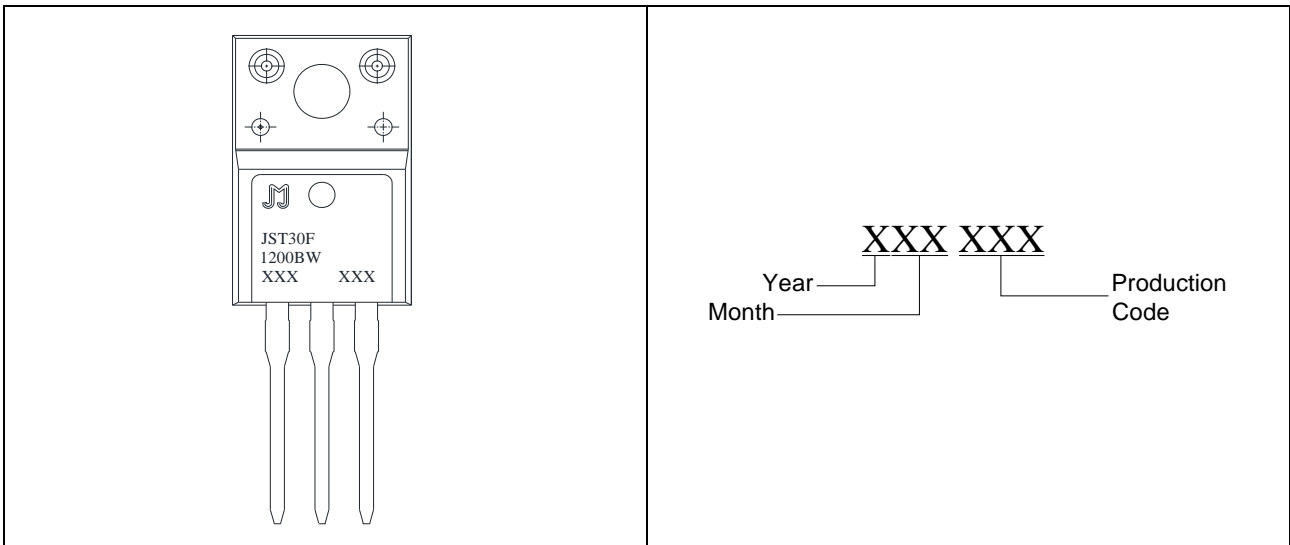
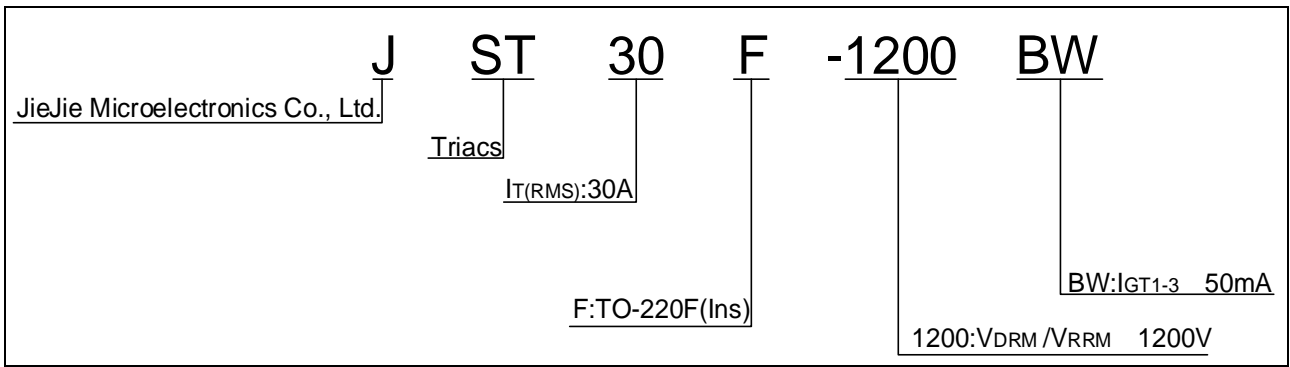


FIG.1: Maximum power dissipation versus RMS on-state current

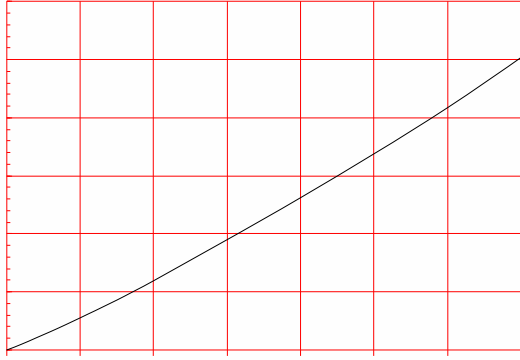


FIG.2: RMS on-state current versus case temperature

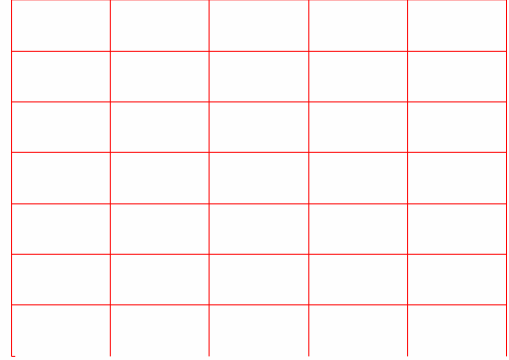
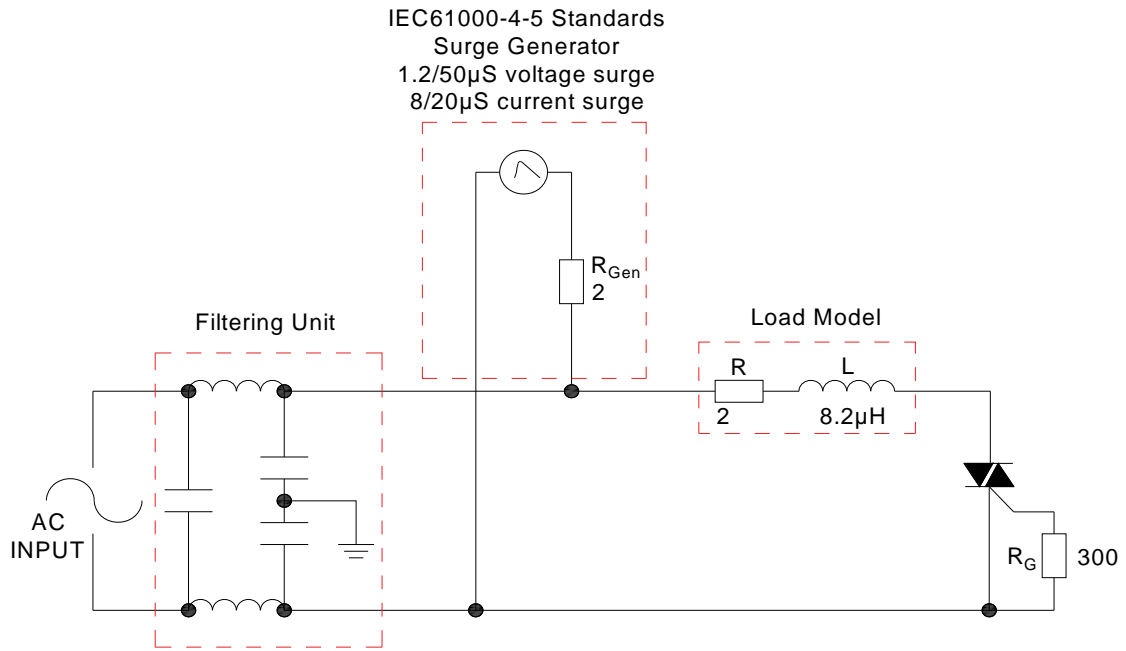


FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards




Refer to the application note “Assembly Instructions for Thyristors in Through-hole Package” released by JieJie

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