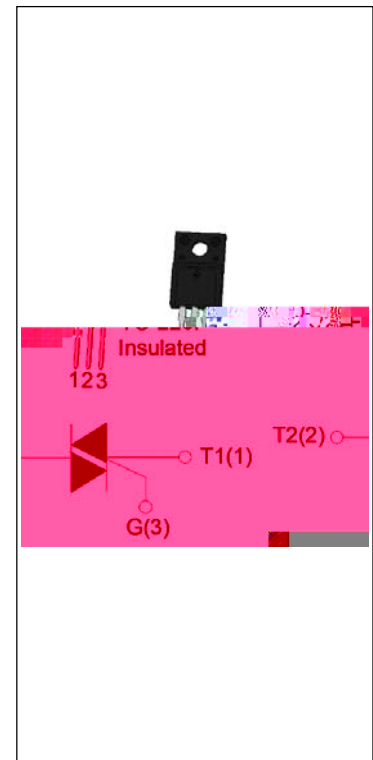


The JST12X-1200CW triac is suitable for general purpose AC switching. It is more suitable for the switch functions of washing machines' water valve, positive inversion of motor, heat pump...JST12X-1200CW snubberless triac is especially recommended for use on inductive loads. By using an external plastic package, JST12X-1200CW provides a rated insulation voltage of 2000 VRMS, complying with UL standards (File ref: E252906). Package TO-220F is RoHS compliant.



| Symbol | Value | Unit |
|-------------------|----------|------|
| $I_{T(RMS)}$ | 12 | A |
| V_{DRM}/V_{RRM} | 1200 | V |
| $I_{GT} / /$ | 35/35/35 | mA |

| | | | |
|------------------------------------------------------------------------------------------------------------------|--------------|---------|------------------------|
| Storage junction temperature range | T_{stg} | -40-150 | |
| Operating junction temperature range | T_j | -40-125 | |
| Repetitive peak off-state voltage ($T_j=25^\circ\text{C}$) | V_{DRM} | 1200 | V |
| Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$) | V_{RRM} | 1200 | V |
| RMS on-state current ($T_c = 80^\circ\text{C}$) | $I_{T(RMS)}$ | 12 | A |
| Non repetitive surge peak on-state current (full cycle, $t_p=20\text{ms}$, $T_j=25^\circ\text{C}$) | I_{TSM} | 130 | A |
| Non repetitive surge peak on-state current (full cycle, $t_p=16.6\text{ms}$, $T_j=25^\circ\text{C}$) | | 140 | |
| I^2t value for fusing ($t_p=10\text{ms}$, $T_j=25^\circ\text{C}$) | I^2t | 84.5 | A^2s |
| Critical rate of rise of on-state current ($I_G=2 \times I_{GT}$, $f=100\text{Hz}$, $T_j=125^\circ\text{C}$) | di/dt | 100 | $\text{A}/\mu\text{s}$ |
| Peak gate current ($t_p=20\mu\text{s}$, $T_j=125^\circ\text{C}$) | I_{GM} | 4 | A |
| Average gate power dissipation ($T_j=125^\circ\text{C}$) | $P_{G(AV)}$ | 0.5 | W |
| Peak gate power | P_{GM} | 10 | W |

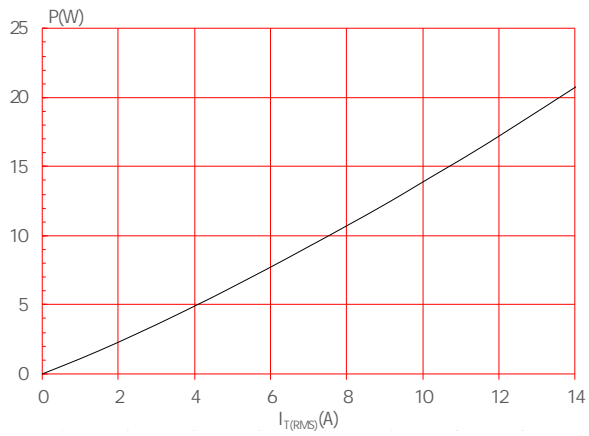


J ST 12 X -1200 CW
JieJie Microelectronics Co., Ltd. Triacs

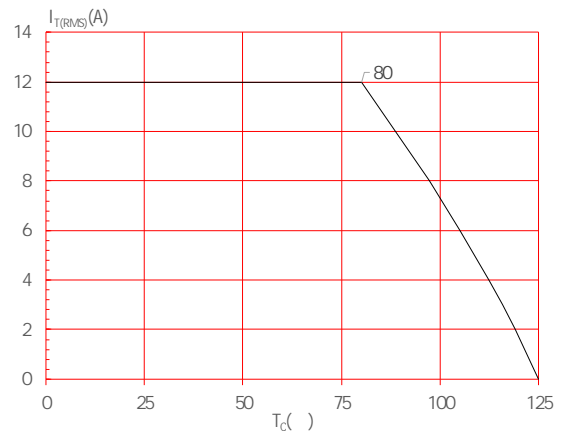
1200:VDRM/V



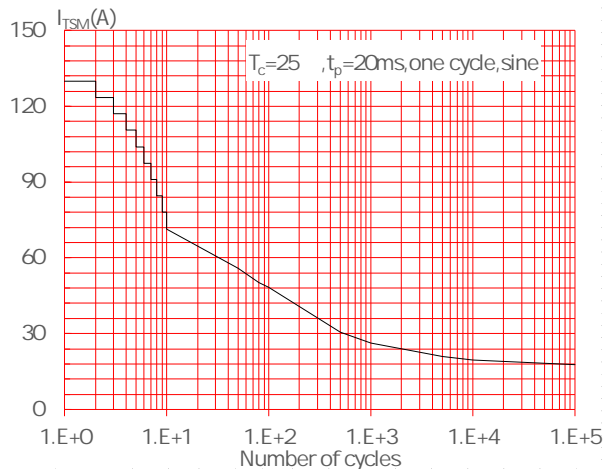
Maximum power dissipation versus RMS on-state current



RMS on-state current versus case temperature



Surge peak on-state current versus number of cycles



On-state characteristics

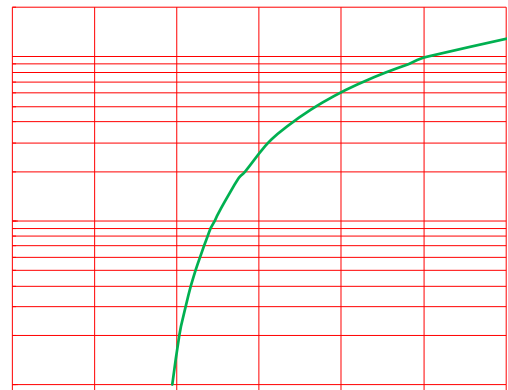
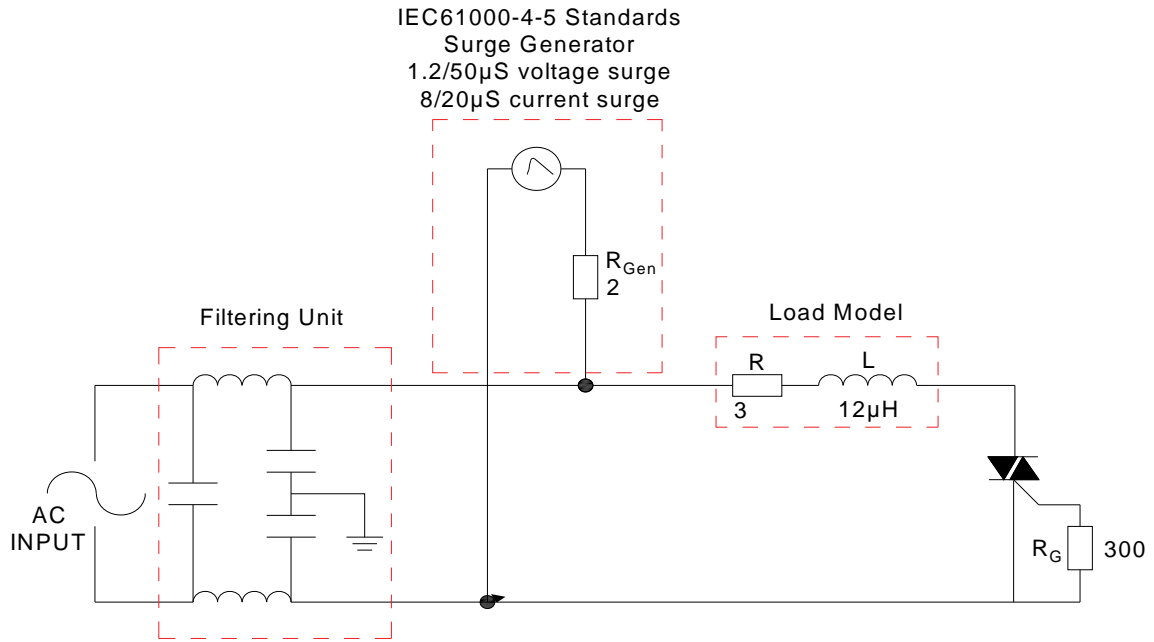




FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards





| | | | | | |
|--|--|--|--|--|--|
| | | | | | |
| | | | | | |


| Date | Revision | Changes |
|--------------|----------|--------------------------------|
| Apr.10, 2023 | A.1.0 | Last updated |
| Oct.15, 2025 | A.1.1 | Revise PACKAGE MECHANICAL DATA |



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