

**JST12C-600C 12A TRIAC**

Rev.A.1.1

The JST12C-600C 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. From T2 terminals to external heatsink. Package TO-220C is RoHS compliant.

| 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 ($T_j=25^\circ\text{C}$) | V_{DRM} | 600 | V |
| Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$) | V_{RRM} | 600 | V |
| RMS on-state current ($T_c = 103^\circ\text{C}$) | $I_{T(RMS)}$ | 12 | A |
| Non repetitive surge peak on-state current (full cycle, $t_p=20\text{ms}$, $T_j=25^\circ\text{C}$) | I_{TSM} | 120 | A |
| Non repetitive surge peak on-state current (full cycle, $t_p=16.6\text{ms}$, $T_j=25^\circ\text{C}$) | | 132 | |
| I^2t value for fusing ($t_p=10\text{ms}$, $T_j=25^\circ\text{C}$) | I^2t | 72 | A^2s |

($T_j=25$ unless otherwise specified)

| Symbol | Test Condition | Quadrant | Value | | Unit |
|----------|-------------------------------------|----------|-------|-----|------|
| I_{GT} | $V_D=12V R_L=33$ | - - | MAX. | 25 | mA |
| | | | | 50 | |
| V_{GT} | | ALL | MAX. | 1 | V |
| V_{GD} | $V_D=V_{DRM} T_j=125$ $R_L=3.3k$ | ALL | MIN. | 0.2 | V |
| I_L | $I_G=1.2I_{GT}$ | - - | MAX. | 40 | mA |

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

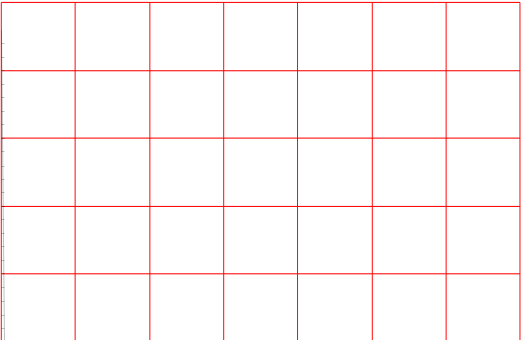



FIG.2: RMS on-state current versus case temperature

JST12C-600C

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