| | | | |
|---|---|---|---|
| Peak gate power | $P_{GM}$ | 10 | W |
| Peak pulse voltage ($T_j$=25 ; non-repetitive,off-state;FIG.7) | $V_{pp}$ | 2.5 | kV |

## ELECTRICAL CHARACTERISTICS ($T_j$=25 unless otherwise specified)

| Symbol | Test Condition | Quadrant | Value | | Unit |
|---|---|---|---|---|---|
| $I_{GT}$ | $V_D$ =12V $R_L$ =33Ω | - - | MAX. | 50 | mA |
| $V_{GT}$ | | - - | MAX. | 1.3 | V |
| $V_{GD}$ | $V_D$ =$V_{DRM}$ $T_j$ =125 $R_L$ =3.3kΩ | - - | MIN. | 0.15 | V |
| $I_L$ | $I_G$ =1.2$I_{GT}$ | - | MAX. | 80 | mA |
| | | | | 100 | |
| $I_H$ | $I_T$ =500mA | | MAX. | 75 | mA |
| dV/dt | $V_D$=400V Gate Open $T_j$ =125 | | MIN. | 2500 | V/μs |
| (dI/dt)c | (dV/dt)c=20V/μs $T_j$=125 | | MIN. | 25 | A/ms |
| $t_{on}$ | $I_G$=80mA $I_A$=400mA $I_R$=40mA $T_j$=25 | | TYP. | 10 | μs |
| $t_{off}$ | | | | 70 | |

## STATIC CHARACTERISTICS

| Symbol | Parameter | | Value(MAX.) | Unit |
|---|---|---|---|---|
| $V_{TM}$ | $I_{TM}$ =42A $t_p$=380μs | $T_j$=25 | 1.5 | V |
| $V_{TO}$ | Threshold voltage | $T_j$=125 | 0.72 | V |
| $R_D$ | Dynamic resistance | $T_j$=125 | 25 | mΩ |
| $I_{DRM}$ | $V_D$ =$V_{DRM}$ $V_R$ =$V_{RRM}$ | $T_j$=25 | 5 | μA |
| $I_{RRM}$ | | $T_j$=125 | 1.5 | mA |

## THERMAL RESISTANCES

| Symbol | Parameter | Value | Unit |
|---|---|---|---|
| $R_{th(j-c)}$ | | | |

## ORDERING INFORMATION

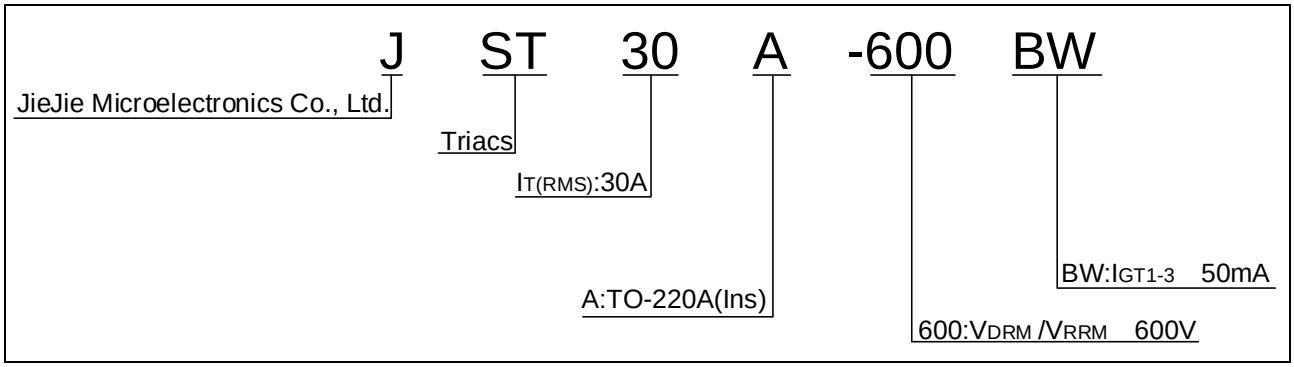
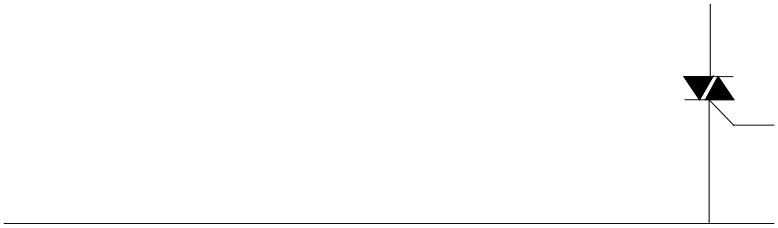


**FIG.1:** Maximum power dissipation versus RMS on-state current



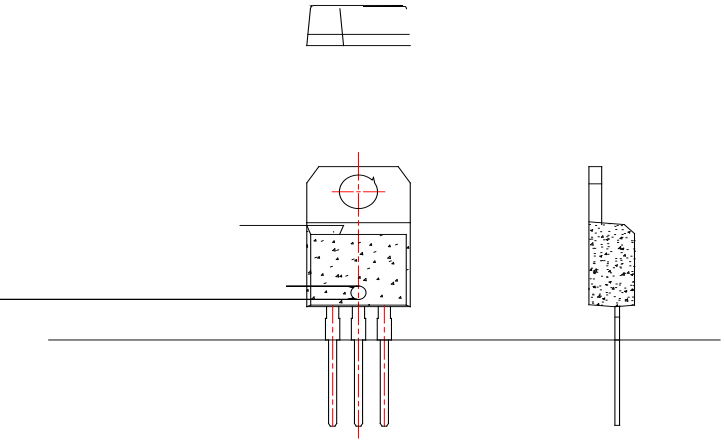
**FIG.2:** RMS on-state current versus case temperature

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



# JST30A-600BW

## PACKAGE MECHANICAL DATA



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