| | | | |
|---|---|---|---|
| Peak gate power | $P_{GM}$ | 10 | W |
| Peak pulse voltage<br>($T_j$=25 ; non-repetitive,off-state;FIG.7) | $V_{pp}$ | 4 | kV |

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

| Symbol | Test Condition | Quadrant | Value | | Unit |
|---|---|---|---|---|---|
| $I_{GT}$ | $V_D$ =12V $R_L$ =33 | - - | MAX. | 35 | mA |
| $V_{GT}$ | | - - | MAX. | 1 | V |
| $V_{GD}$ | $V_D$ =$V_{DRM}$ $T_j$ =125<br>$R_L$ =3.3k | - - | MIN. | 0.2 | V |
| $I_L$ | $I_G$ =1.2$I_{GT}$ | - | MAX. | 50 | mA |
| | | | | 60 | |
| $I_H$ | $I_T$ =500mA | | MAX. | 40 | mA |
| dV/dt | $V_D$=670V Gate Open $T_j$ =125 | | MIN. | 800 | V s |
| (dI/dt)c | j=125 | | MIN. | 10 | A/ms |
| $t_{on}$ | $I_G$=40mA $I_A$=200mA $I_R$=20mA<br>$T_j$=25 | | TYP. | 7 | s |
| $t_{off}$ | | | | 50 | |

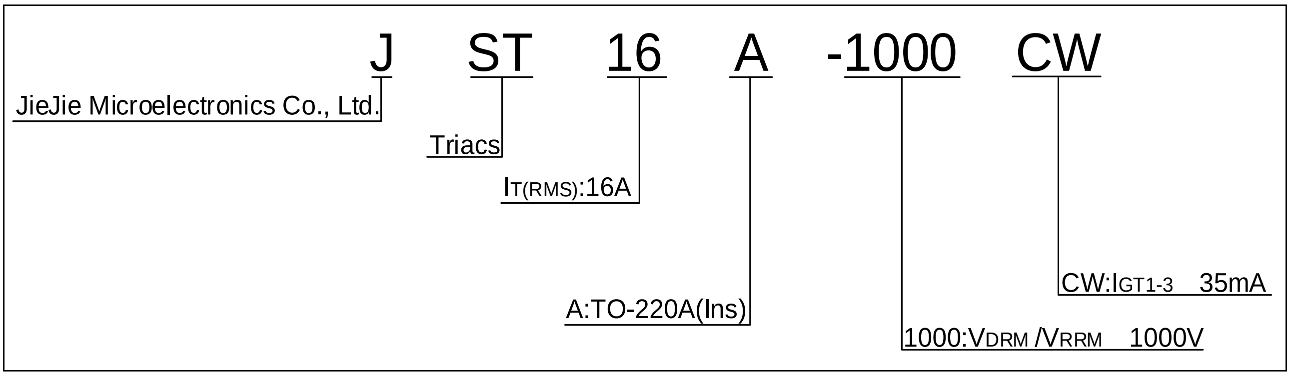
## STATIC CHARACTERISTICS

| Symbol | Parameter | | Value(MAX.) | Unit |
|---|---|---|---|---|
| $V_{TM}$ | $I_{TM}$ =22.5A $t_p$=380 s | $T_j$=25 | 1.5 | V |
| $V_{TO}$ | Threshold voltage | $T_j$=125 | 0.77 | V |
| $R_D$ | Dynamic resistance | $T_j$=125 | 32 | |
| $I_{DRM}$ | $V_D$ =$V_{DRM}$ $V_R$ =$V_{RRM}$ | $T_j$=25 | 10 | A |
| $I_{RRM}$ | | $T_j$=125 | 1 | mA |

## THERMAL RESISTANCES

| Symbol | Parameter | Value | Unit |
|---|---|---|---|
| $R_{th(j-c)}$ | junction to case (AC) | 1 | /W |
| $R_{th(j-a)}$ | junction to ambient (AC) | 60 | /W |

## ORDERING INFORMATION



## MARKING

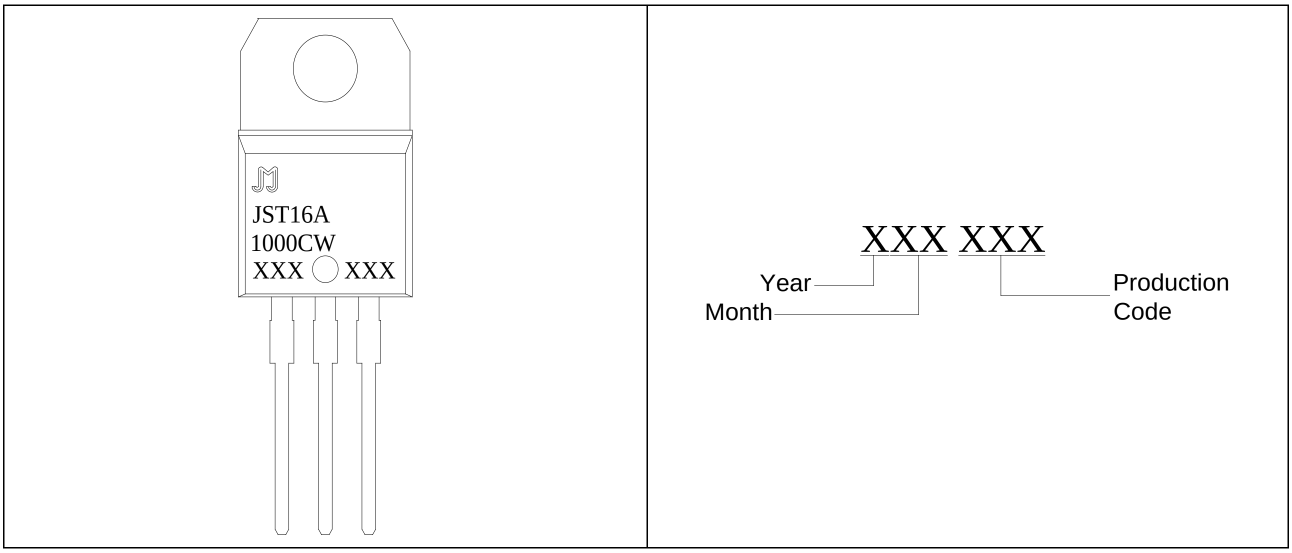
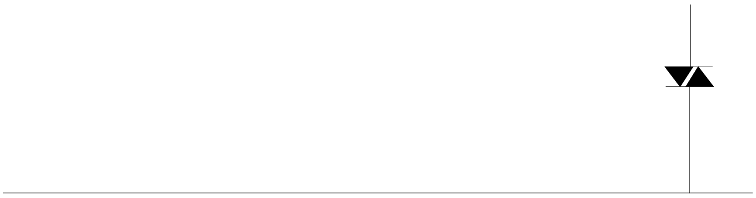


**FIG.1:** Maximum power dissipation versus RMS on-state current

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

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



## PACKAGE MECHANICAL DATA