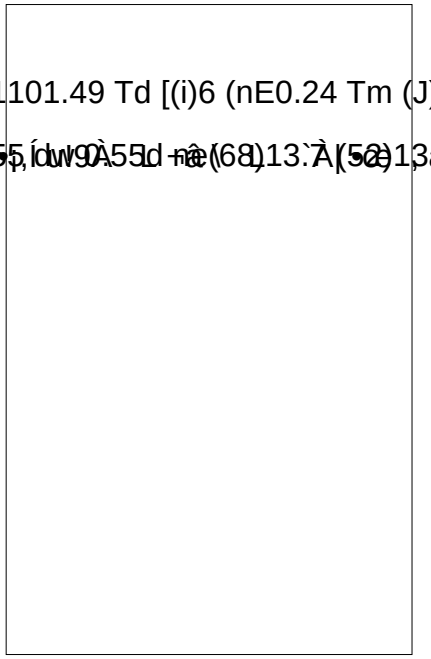
JCT625CH 25A SCR

Rev.A.1.1

## DESCRIPTION:

With high ability to withstand the shock loading of large current, JCT625CH SCR provides high dV/dt rate with strong resistance to electromagnetic interference.It is especially suitable for



| | | | |
|---|---|---|---|
| Peak gate power | $P_{GM}$ | 20 | W |
| Peak pulse voltage ($T_j$=25 ; non-repetitive,off-state;FIG.7) | $V_{pp}$ | 0.5 | kV |

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

| Symbol | Test Condition | Value | | | Unit |
|---|---|---|---|---|---|
| | | MIN. | TYP. | MAX. | |
| $I_{GT}$ | $V_D$=12V $R_L$=33 | - | - | 20 | mA |
| $V_{GT}$ | | - | - | 1 | V |
| $V_{GD}$ | $V_D$=$V_{DRM}$ $T_j$=150 R L=3.3k | 0.2 | - | - | V |
| $I_L$ | $I_G$=1.2$I_{GT}$ | - | - | 70 | mA |
| $I_H$ | $I_T$=500mA | - | - | 60 | mA |
| dV/dt | $V_D$=400V Gate Open $T_j$=125 | 1200 | - | - | V s |
| | $V_D$=400V Gate Open $T_j$=150 | 800 | - | - | |
| $t_{on}$ | $I_G$=20mA $I_A$=200mA $I_R$=20mA $T_j$=25 | - | 2 | - | s |
| $t_{off}$ | | - | 50 | - | |

## STATIC CHARACTERISTICS

| Symbol | Parameter | | Value(MAX.) | Unit |
|---|---|---|---|---|
| $V_{TM}$ | $I_{TM}$=50A $t_p$=380 s | $T_j$=25 | 1.5 | V |
| $V_{TO}$ | Threshold voltage | $T_j$=150 | 0.7 | V |
| $R_D$ | Dynamic resistance | $T_j$=150 | 18 | P |
| $I_{DRM}$ | $V_D$=$V_{DRM}$ $V_R$=$V_{RRM}$ | $T_j$=25 | 5 | A |
| $I_{RRM}$ | | $T_j$=150 | 5 | mA |

## THERMAL RESISTANCES

| Symbol | Parameter | Value | Unit |
|---|---|---|---|
| $R_{th(j-c)}$ | junction to case(DC) | 0.3 | /W |
| $R_{th(j-a)}$ | junction to ambient (DC) | 60 | /W |

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

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

## ORDERING INFORMATION

| Order code | Voltage $V_{DRM}/V_{RRM}$ (V) | IGT(mA) | Package | 1CID 1 6 /P < </M |
|---|---|---|---|---|

PACKAGE MECHANICAL DATA

