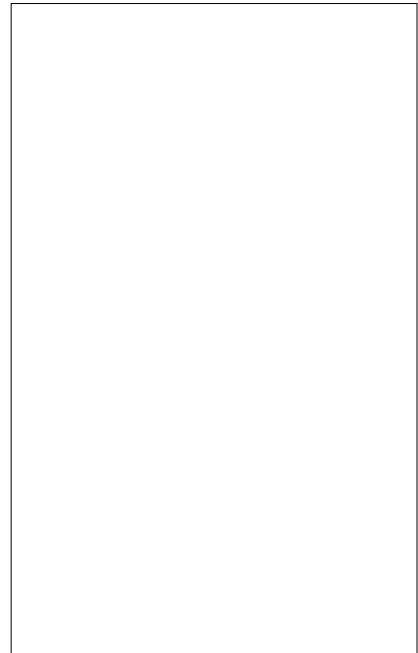


JCT625CH 25A SCR

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 interj 1e current, CCT



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

## ELECTRICAL CHARACTERISTICS (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    |
| $I_L$     | $I_G=1.2I_{GT}$                           | -     | -    | 70   | mA   |
| $I_H$     | $I_T=500mA$                               | -     | -    | 60   | mA   |
| dV/dt     | $V_D=400V$ Gate Open $T_j=125$            | 1 00  | -    | -    | V s  |
|           | $V_D=400V$ Gate Open $T_j=150$            | 00    | -    | -    |      |
| $t_{on}$  | $I_G=20mA I_A=200mA I_R=20mA$<br>$T_j=25$ | -     | 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<br>$V_{DRM}/V_{RRM}$ (V) | IGT(mA) | Package | 1CID 1 6 /P </M |
|------------|----------------------------------|---------|---------|-----------------|
|------------|----------------------------------|---------|---------|-----------------|

PACKAGE MECHANICAL DATA



