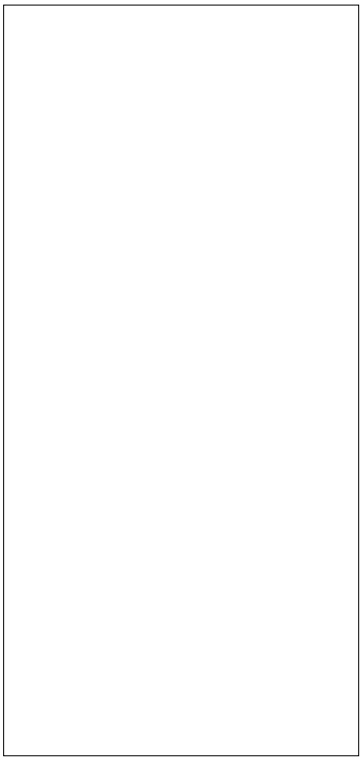
## JCT625AH 25A SCR

Rev.A.1.1

DESCRIPTION:

With high ability to withstand the shock loading of large current, JCT625AH SCR provides high dV/dt rate with strong resistance to electromagnetic interference. It is especially recommended for use on solid state relay, motor drive, power charger, etc.



| | | | |
|---|---|---|---|
| Average gate power dissipation ($T_j$=150 ) | $P_{G(AV)}$ | 1 | W |
| 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 $R_L$=33Ω | - | - | 20 | mA |
| $V_{GT}$ | | - | - | 1 | V |
| $V_{GD}$ | $V_D$=$V_{DRM}$ $T_j$=150 $R_L$=3.3kΩ | 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 | 1 00 | - | - | V/μs |
| | $V_D$=400V Gate Open $T_j$=150 | 00 | - | - | |
| $t_{on}$ | $I_G$=20mA $I_A$=200mA $I_R$=20mA $T_j$=25 | - | 2 | - | μs |
| $t_{off}$ | | - | 50 | - | |

## STATIC CHARACTERISTICS

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

## THERMAL RESISTANCES

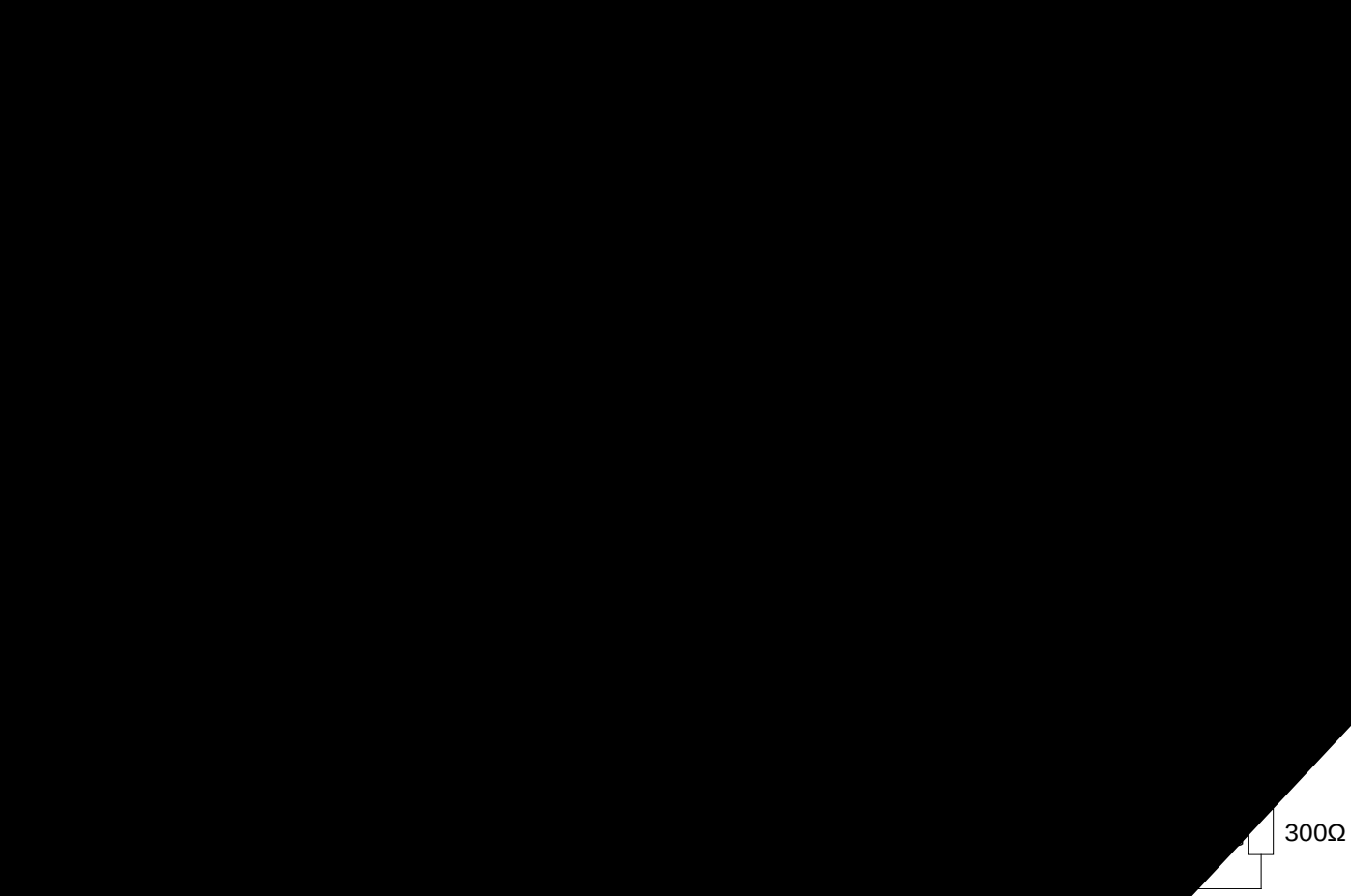
| Symbol | Parameter | Value | Unit |
|---|---|---|---|
| $R_{th(j-c)}$ | junction to case (DC) | 1.16 | /W |
| $R_{th(j-a)}$ | junction to ambient (DC) | 60 | /W |

# JCT625AH

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



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


300Ω

## ORDERING INFORMATION

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

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