



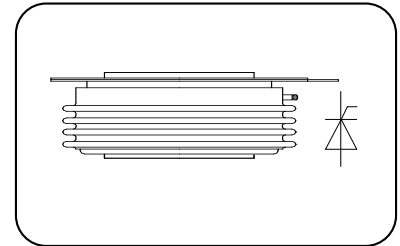
**Features**

- Interdigitated amplifying gates
- Fast turn-on and high di/dt
- Low switching losses

**Typical Applications**

- Inductive heating
- Electronic welders
- Self-commutated inverters

**$I_{T(AV)}$  3000A**  
 **$V_{DRM}/V_{RRM}$  1900~2200V**  
 **$t_q$  22~45 $\mu$ s**  
 **$I_{TSM}$  45 kA**  
 **$I^2t$  10125 10<sup>3</sup>A<sup>2</sup>S**



| SYMBOL                 | CHARACTERISTIC   | TEST CONDITIONS   | $T_j(^{\circ}C)$ | VALUE     |      |       | UNIT                             |
|------------------------|--|---|------------------|-----------|------|-------|----------------------------------|
|                        |  |   |                  | Min       | Type | Max   |                                  |
| $I_{T(AV)}$            | Mean on-state current  | 180° half sine wave 50Hz<br>Double side cooled,<br>$T_c=55^{\circ}C$                                      | 125              |           | 3000 | 4470  | A                                |
| $V_{DRM}$<br>$V_{RRM}$ | Repetitive peak off-state voltage<br>Repetitive peak reverse voltage | $V_{DRM} \& V_{RRM}$ , $t_p=10ms$<br>$V_{DSM} \& V_{RSM} = V_{DRM} \& V_{RRM} + 100V$                     | 125              | 1900      |      | 2200  | V                                |
| $I_{DRM}$<br>$I_{RRM}$ | Repetitive peak current  | $V_D = V_{DRM}$<br>$V_R = V_{RRM}$  | 125              |           |      | 250   | mA                               |
| $I_{TSM}$              | Surge on-state current   | 10ms half sine wave   | 125              |           |      | 45    | kA                               |
| $I^2t$                 | $I^2T$ for fusing coordination                                       | $V_R = 0.6V_{RRM}$  |                  |           |      | 10125 | A <sup>2</sup> s*10 <sup>3</sup> |
| $V_{TO}$               | Threshold voltage  |   | 125              |           |      | 1.14  | V                                |
| $r_T$                  | On-state slop resistance   |   |                  |           |      | 0.10  | m $\Omega$                       |
| $V_{TM}$               | Peak on-state voltage  | $I_{TM}=5000A$ , $F=70kN$   | 25               |           |      | 3.00  | V                                |
| dv/dt                  | Critical rate of rise of off-state voltage                           | $V_{DM}=0.67V_{DRM}$  | 125              |           |      | 1000  | V/ $\mu$ s                       |
| di/dt                  | Critical rate of rise of on-state current                            | $V_{DM}=67\%V_{DRM}$ , $I_{TM}$ to 4000A, $t=5s$<br>Gate pulse $t_r \leq 0.5\mu s$ $I_{GM}=1.5A$ $f=50Hz$ | 125              |           |      | 600   | A/ $\mu$ s                       |
| $Q_{rr}$               | Recovery charge  | $I_{TM}=2000A$ , $t_p=1000\mu s$ ,<br>$di/dt=-20A/\mu s$ , $V_R=100V$                                     | 125              |           | 1100 |       | $\mu C$                          |
| $t_q$                  | Circuit commutated turn-off time                                     | $I_{TM}=2000A$ , $t_p=1000\mu s$ , $V_R=100V$<br>$dv/dt=30V/\mu s$ , $di/dt=-20A/\mu s$                   | 125              | 22        |      | 45    | $\mu s$                          |
| $I_{GT}$               | Gate trigger current   | $V_A=12V$ , $I_A=1A$  | 25               | 40        |      | 250   | mA                               |
| $V_{GT}$               | Gate trigger voltage   |   |                  | 0.9       |      | 2.5   | V                                |
| $I_H$                  | Holding current  |   |                  | 20        |      | 400   | mA                               |
| $V_{GD}$               | Non-trigger gate voltage   | $V_{DM}=67\%V_{DRM}$  | 125              |           |      | 0.3   | V                                |
| $R_{th(j-c)}$          | Thermal resistance<br>Junction to case                               | At 180° sine double side cooled<br>Clamping force 70 kN   |                  |           |      | 0.007 | $^{\circ}C/W$                    |
| $R_{th(c-h)}$          | Thermal resistance<br>case to heat sink                              |   |                  |           |      | 0.002 |                                  |
| $F_m$                  | Mounting force   |   |                  | 63        |      | 84    | kN                               |
| $T_{stg}$              | Stored temperature   |   |                  | -40       |      | 140   | $^{\circ}C$                      |
| $W_t$                  | Weight   |   |                  | 1460/1880 |      |       | g                                |
| Outline                | KT95cT/dT  |   |                  |           |      |       |                                  |

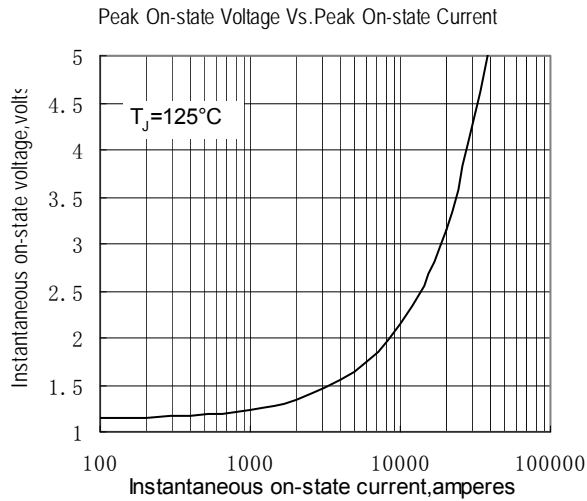


Fig.1

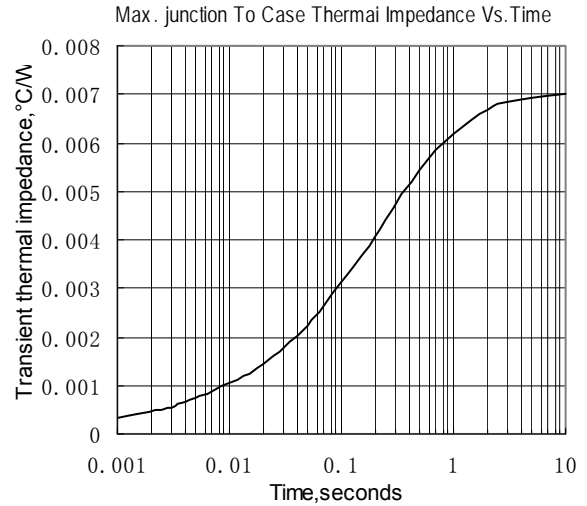


Fig.2

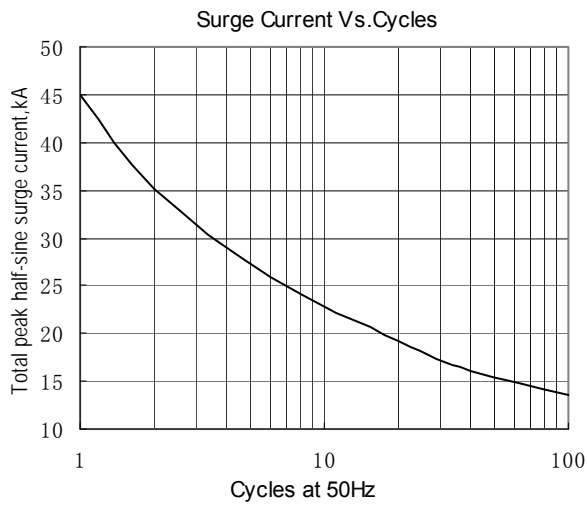


Fig.3

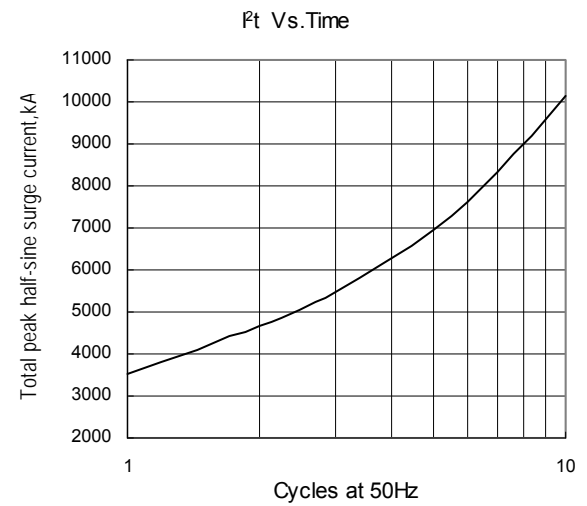


Fig.4

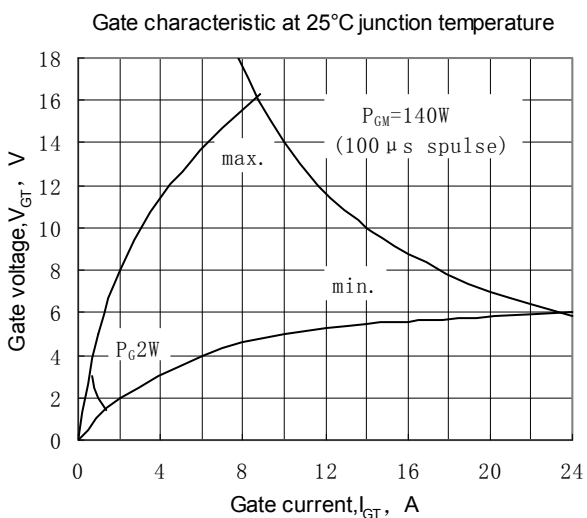


Fig.5

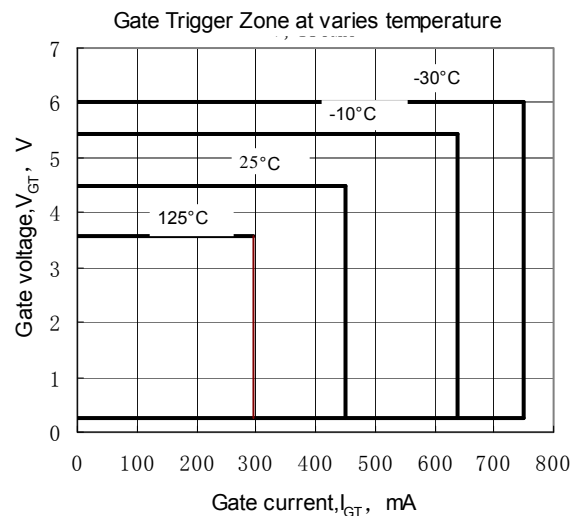


Fig.6



Outline:

图19-KT95cT

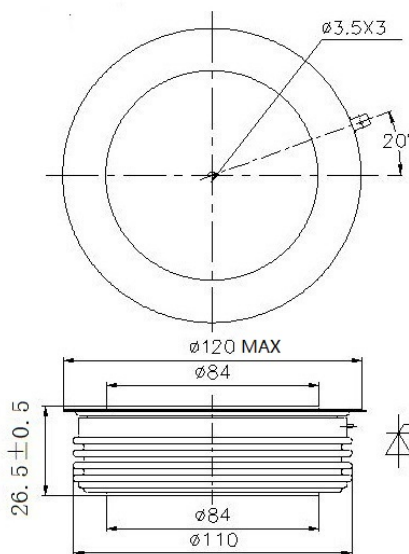
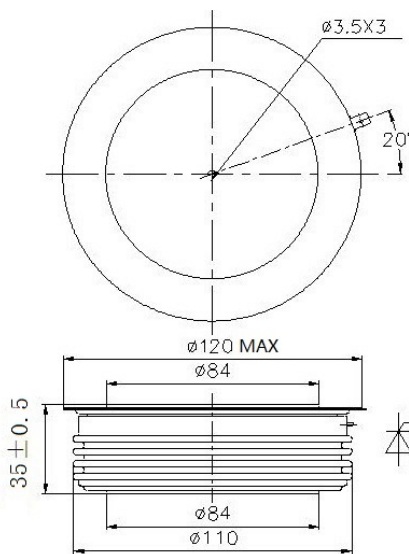


图20-KT95dT



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