



|                                                                      |          |     |    |
|----------------------------------------------------------------------|----------|-----|----|
| Peak gate power                                                      | $P_{GM}$ | 10  | W  |
| Peak pulse voltage<br>( $T_j=25$ ; non-repetitive, off-state; FIG.7) | $V_{pp}$ | 3.5 | kV |

(T<sub>j</sub>=25 unless otherwise specified)

| Symbol               | Test Condition                                 | Quadrant | Value |     | Unit       |
|----------------------|------------------------------------------------|----------|-------|-----|------------|
| $I_{GT}$             | $V_D=12V$ $R_L=33\Omega$                       | - -      | MAX.  | 5   | mA         |
| $V_{GT}$             |                                                | - -      | MAX.  | 1   | V          |
| $V_{GD}$             | $V_D=V_{DRM}$ $T_j=125$<br>$R_L=3.3k\Omega$    | - -      | MIN.  | 0.2 | V          |
| $I_L$                | $I_G=1.2I_{GT}$                                | -        | MAX.  | 10  | mA         |
|                      |                                                |          |       | 15  |            |
| $I_H$                | $I_T=100mA$                                    |          | MAX.  | 10  | mA         |
| dV/dt                | $V_D=400V$ Gate Open $T_j=125$                 |          | MIN.  | 150 | V/ $\mu s$ |
| (dI/dt) <sub>c</sub> | (dV/dt) <sub>c</sub> =10V/ $\mu s$ , $T_j=125$ |          | MIN.  | 0.5 | A/ms       |
| $t_{on}$             | $I_G=10mA$ $I_A=200mA$ $I_R=20mA$<br>$T_j=25$  |          | TYP.  | 2   | $\mu s$    |
| $t_{off}$            |                                                |          |       | 20  |            |

| Symbol    | Parameter                    |           | Value(MAX.) | Unit       |
|-----------|------------------------------|-----------|-------------|------------|
| $V_{TM}$  | $I_{TM}=8.5A$ $t_p=380\mu s$ | $T_j=25$  | 1.5         | V          |
| $V_{TO}$  | Threshold voltage            | $T_j=125$ | 0.82        | V          |
| $R_D$     | Dynamic resistance           | $T_j=125$ | 57          | m $\Omega$ |
| $I_{DRM}$ | $V_D=V_{DRM}$ $V_R=V_{RRM}$  | $T_j=25$  | 5           | $\mu A$    |
| $I_{RRM}$ |                              | $T_j=125$ | 0.2         | mA         |

| Symbol        | Parameter                | Value | Unit |
|---------------|--------------------------|-------|------|
| $R_{th(j-c)}$ | junction to case (AC)    | 1.7   | /W   |
| $R_{th(j-a)}$ | junction to ambient (AC) | 60    | /W   |





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



| Order code   | Voltage<br>$V_{\text{DRM}}/V_{\text{RRM}}$ (V) | IGT(mA) | Package | Base qty.<br>(pcs) | Delivery<br>mode |
|--------------|------------------------------------------------|---------|---------|--------------------|------------------|
|              |                                                | - -     |         |                    |                  |
| JST06C-600TW | 600                                            | 5       | TO-220C | 50                 | Tube             |

**Document Revision History**

| Date         | Revision | Changes                        |
|--------------|----------|--------------------------------|
|              |          |                                |
| Oct.15, 2025 | A.1.1    | Revise PACKAGE MECHANICAL DATA |



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