



## ELECTRICAL CHARACTERISTICS (unless otherwise specified)

| Symbol      | Test Condition                                | Quadrant | Value |     | Unit |
|-------------|-----------------------------------------------|----------|-------|-----|------|
| $I_{GT}$    | $V_D=12V$ $R_L=33$                            | ALL      | MAX.  | 5   | mA   |
| $V_{GT}$    |                                               | ALL      | MAX.  | 1.3 | V    |
| $V_{GD}$    | $V_D=V_{DRM}$ $T_j=125$<br>$R_L=3.3k$         | ALL      | MIN.  | 0.2 | V    |
| $I_L$       | $I_G=1.2I_{GT}$                               | - -      | MAX.  | 5   | mA   |
|             |                                               |          |       | 10  |      |
| $I_H$       | $I_T=50mA$                                    |          | MAX.  | 5   | mA   |
| $dV/dt$     | $V_D=540V$ Gate Open $T_j=110$                |          | MIN.  | 20  | V s  |
| $(dV/dt)_c$ | $(dI/dt)_c=0.44A/ms$ , $T_j=110$              |          | MIN.  | 1   |      |
| $t_{on}$    | $I_G=40mA$ $I_A=200mA$ $I_R=20mA$<br>$T_j=25$ |          | TYP.  | 2   | s    |
| $t_{off}$   |                                               |          |       | 20  |      |

## STATIC CHARACTERISTICS

| Symbol   | Parameter                 |           | Value(MAX.) | Unit |
|----------|---------------------------|-----------|-------------|------|
| $V_{TM}$ | $I_{TM}=1.4A$ $t_p=380$ s | $T_j=25$  | 1.45        | V    |
| $V_{TO}$ | Threshold voltage         | $T_j=125$ | 0.96        | V    |
| $R_D$    | Dynamic resistance        | T         |             |      |



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

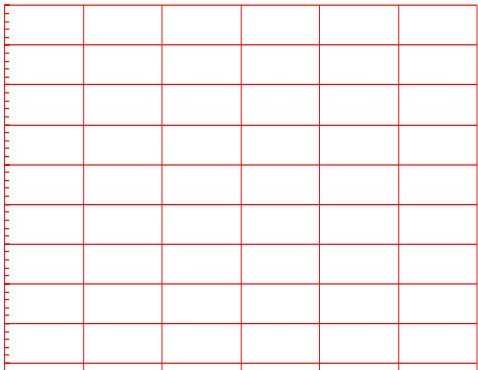


FIG.2: RMS on-state current versus case temperature





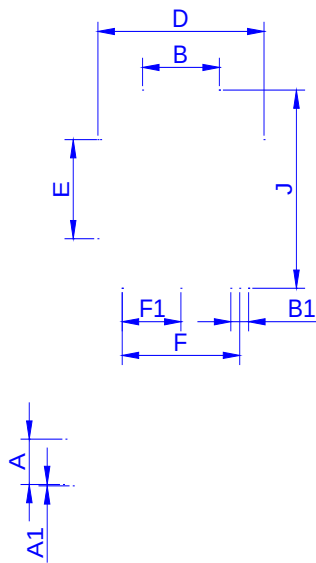
## ORDERING INFORMATION

| Order code   | Voltage<br>$V_{\text{DRM}}/V_{\text{RRM}}$ (V) | IGT(mA) | Package    | Base qty.<br>(pcs) | Delivery<br>mode |
|--------------|------------------------------------------------|---------|------------|--------------------|------------------|
|              |                                                | - - -   |            |                    |                  |
| JST131W-800T | 800                                            | 5       | SOT-223-2L | 4,000              | Tape & Reel      |

## Document Revision History

| Date         | Revision | Changes                        |
|--------------|----------|--------------------------------|
| Apr.14, 2023 | A.1.0    | Last updated                   |
| Oct.24, 2025 | A.1.1    | Revise PACKAGE MECHANICAL DATA |

## PACKAGE MECHANICAL DATA F1



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JST131W-800T

