

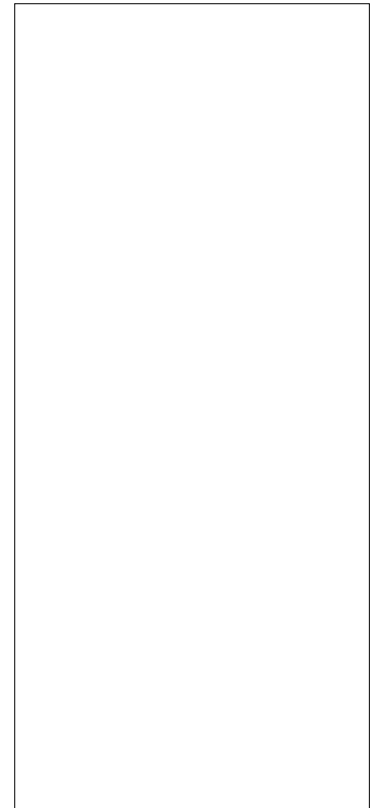


**ACJP01W-800SW 1A TRIAC**

Rev.A.1.1

**DESCRIPTION:**

The ACJP01W-800SW triac is suitable for general purpose AC switching. It can be used as an ON/OFF function in applications



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|  |             |     |    |
|--|-------------|-----|----|
| Average gate power dissipation ( $T_j=125$ )                         | $P_{G(AV)}$ | 0.1 | W  |
| Peak gate power  | $P_{GM}$    | 2   | W  |
| Peak pulse voltage<br>( $T_j=25$ ; non-repetitive, off-state; FIG.8) | $V_{pp}$    | 4.5 | kV |

## ELECTRICAL CHARACTERISTICS (unless otherwise specified)

| Symbol      | Test Condition                                | Quadrant | Value |      | Unit       |
|-------------|---|----------|-------|------|------------|
| $I_{GT}$    | $V_D=12V$ $R_L=33$                            | -        | MAX.  | 10   | mA         |
| $V_{GT}$    |   | -        | MAX.  | 1    | V          |
| $V_{GD}$    | $V_D=V_{DRM}$ $T_j=125$<br>$R_L=3.3k$         | -        | MIN.  | 0.15 | V          |
| $I_L$       | $I_G=1.2I_{GT}$                               |          | MAX.  | 25   | mA         |
|             |   |          |       | 10   |            |
| $I_H$       | $I_T=100mA$                                   |          | MAX.  | 10   | mA         |
| $dV/dt$     | $V_D=540V$ Gate Open $T_j=125$                |          | MIN.  | 100  | V/ $\mu s$ |
| $(dI/dt)_c$ | $(dV/dt)_c=10V/\mu s$ , $T_j=125$             |          | MIN.  | 0.6  | A/ms       |
| $t_{on}$    | $I_G=20mA$ $I_A=200mA$ $I_R=20mA$<br>$T_j=25$ |          | TYP.  | 2.5  | $\mu s$    |
| $t_{off}$   |   |          |       | 25   |            |
| $V_{CL}$    | $I_{CL}=0.1mA$ $t_p=1ms$                      |          | MIN.  | 900  | V          |

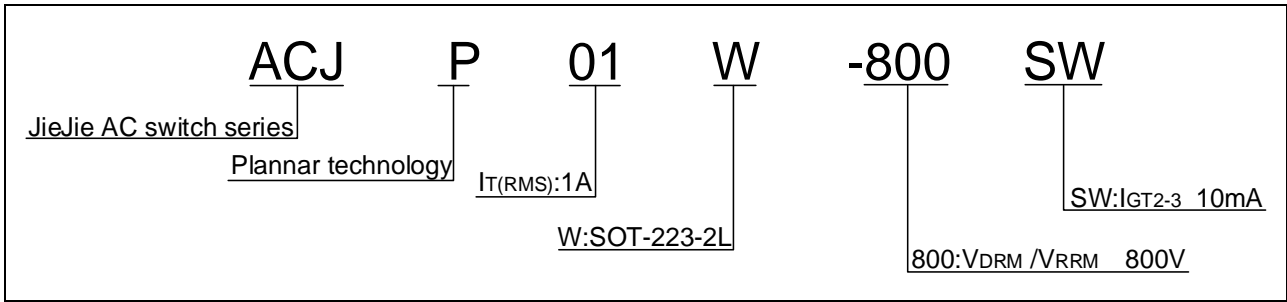
## STATIC CHARACTERISTICS

| Symbol    | Parameter                    |           | Value(MAX.) | Unit    |
|-----------|------------------------------|-----------|-------------|---------|
| $V_{TM}$  | $I_{TM}=1.1A$ $t_p=380\mu s$ | $T_j=25$  | 1.3         | V       |
| $V_{TO}$  | Threshold voltage            | $T_j=125$ | 0.77        | V       |
| $R_D$     | Dynamic resistance           | $T_j=125$ | 276         | m       |
| $I_{DRM}$ | $V_D=V_{DRM}$ $V_R=V_{RRM}$  | $T_j=25$  | 5           | $\mu A$ |
| $I_{RRM}$ |                              | $T_j=125$ | 0.4         | mA      |

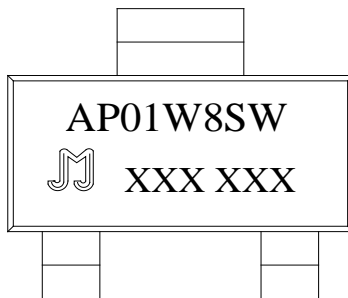
## THERMAL RESISTANCES

| Symbol        | Parameter                | Value | Unit        |
|---------------|--------------------------|-------|-------------|
| $R_{th(j-c)}$ | junction to case (AC)    | 25    | $^{\circ}W$ |
| $R_{th(j-a)}$ | junction to ambient (AC) | 150   | $^{\circ}W$ |

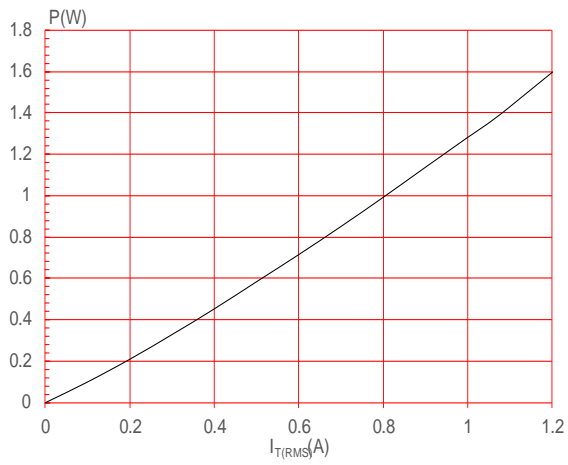
ORDERING INFORMATION



MARKING



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



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

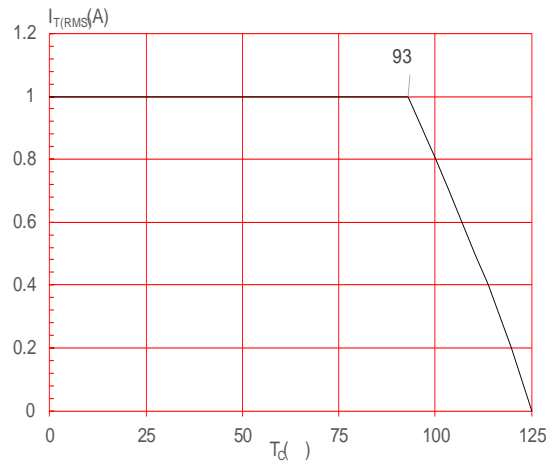


FIG.7: Relative variations of gate trigger current, holding current and latching current versus junction temperature

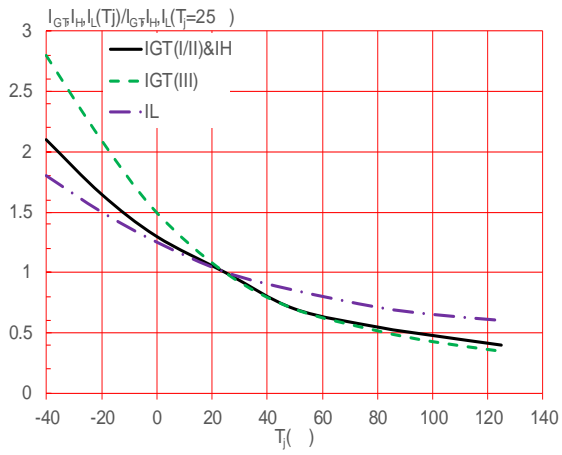
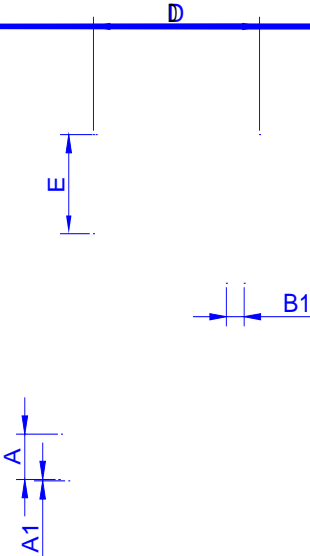


FIG.8 Test circuit for inductive and resistive loads to IEC-



PACKAGE MECHANICAL DATA




DELIVERY MODE

|      | Dimensions  |
|------|-------------|
| Ref. | Millimeters |

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