



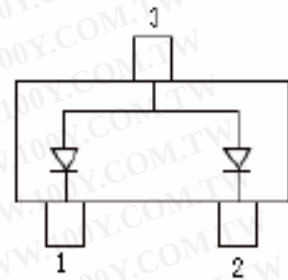
SWITCHING DIODE

SOT-323

FEATURES

- Fast switching speed
- For general purpose switching applications
- High conductance

MARKING: KJC



Maximum Ratings @T<sub>A</sub>=25°C

| Parameter                                      | Symbol               | Limits      | Unit |
|------------------------------------------------|----------------------|-------------|------|
| Non-Repetitive Peak reverse voltage            | V <sub>RM</sub>      | 100         | V    |
| Peak Repetitive Peak reverse voltage           | V <sub>RRM</sub>     | 75          | V    |
| Working Peak Reverse Voltage                   | V <sub>RWM</sub>     |             |      |
| DC Blocking Voltage                            | V <sub>R</sub>       |             |      |
| RMS Reverse Voltage                            | V <sub>R</sub> (RMS) | 53          | V    |
| Forward Continuous Current                     | I <sub>FM</sub>      | 300         | mA   |
| Average Rectified Output Current               | I <sub>O</sub>       | 150         | mA   |
| Peak forward surge current @=1.0μs             | I <sub>FSM</sub>     | 2.0         | A    |
| @=1.0s                                         |                      | 1.0         |      |
| Power Dissipation                              | P <sub>D</sub>       | 200         | mW   |
| Typical Thermal Resistance Junction to Ambient | R <sub>θJA</sub>     | 625         | K/W  |
| Junction temperature                           | T <sub>J</sub>       | 150         | °C   |
| Storage Temperature                            | T <sub>STG</sub>     | -65 to +150 | °C   |

Electrical Ratings @T<sub>A</sub>=25°C

| Parameter                     | Symbol             | Test conditions                                                                                   | MIN | MAX   | UNIT |
|-------------------------------|--------------------|---------------------------------------------------------------------------------------------------|-----|-------|------|
| Reverse Breakdown Voltage     | V <sub>(BR)R</sub> | I <sub>R</sub> =2.5μA                                                                             | 75  |       | V    |
| Forward Voltage               | V <sub>F1</sub>    | I <sub>F</sub> = 1mA                                                                              |     | 0.715 | V    |
|                               | V <sub>F2</sub>    | I <sub>F</sub> = 10mA                                                                             |     | 0.855 |      |
|                               | V <sub>F3</sub>    | I <sub>F</sub> = 50mA                                                                             |     | 1.0   |      |
|                               | V <sub>F4</sub>    | I <sub>F</sub> = 150mA                                                                            |     | 1.25  |      |
| Reverse current               | I <sub>R1</sub>    | V <sub>R</sub> =75V                                                                               |     | 2.5   | μA   |
|                               | I <sub>R2</sub>    | V <sub>R</sub> =20V                                                                               |     | 25    | nA   |
| Capacitance between terminals | C <sub>T</sub>     | V <sub>R</sub> =0V, f=1MHz                                                                        |     | 2     | pF   |
| Reverse Recovery Time         | t <sub>rr</sub>    | I <sub>F</sub> =I <sub>R</sub> =10mA; I <sub>rr</sub> =0.1xI <sub>R</sub> , R <sub>L</sub> =100 Ω |     | 4     | nS   |

# RATING AND CHARACTERISTIC CURVES

## BAW56W



FIG.1-TYPICAL FORWARD CHARACTERISTICS

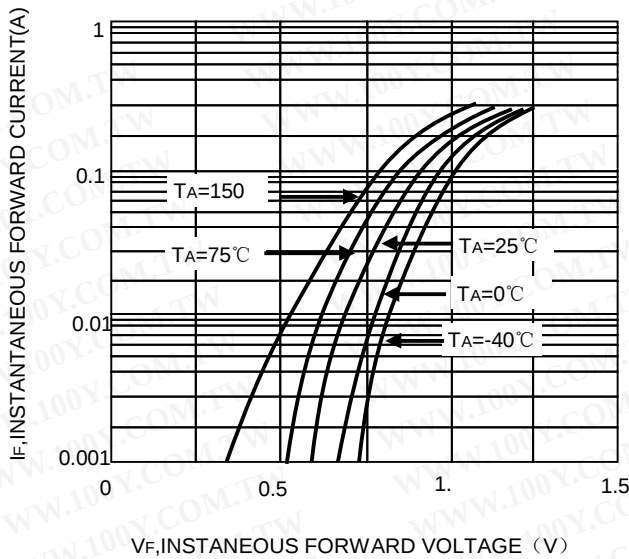


FIG.2-TYPICAL REVERSE CHARACTERISTICS

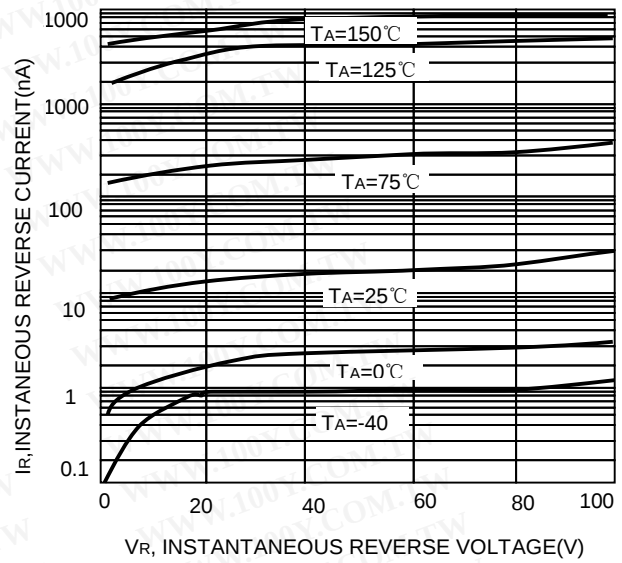


FIG.3-TYPICAL CAPACITANCE VS.REVERSE VOLTAGE

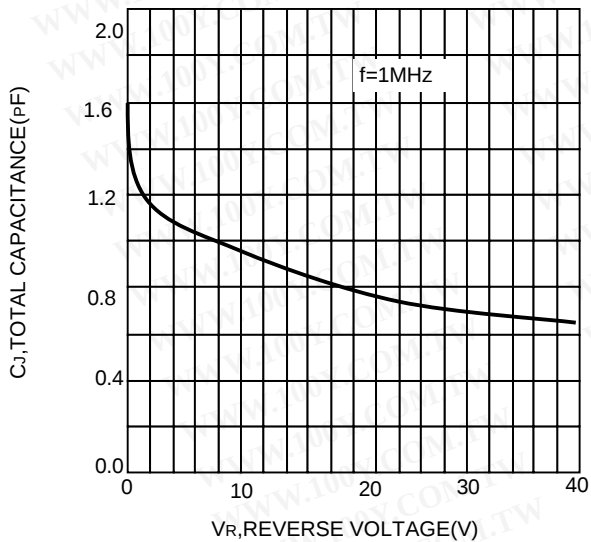


FIG.4-POWER DERATING CURVE,TOTAL PACKAGE

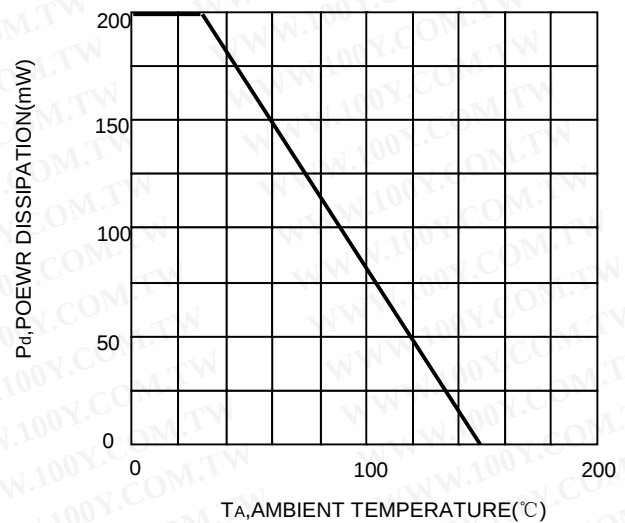


FIG.5-REVERSE RECOVERY TIME VS.FORWARD CURRENT

