## MSKSEMI















**ESD** 

TVS

TSS

MOV

GDT

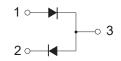
**PLED** 

# Broduct data sheet





**SOT-23** 



#### **FEATURES**

- This Switching Diode has The Following Features:
- Low Leakage Current Applications

#### Marking: JY



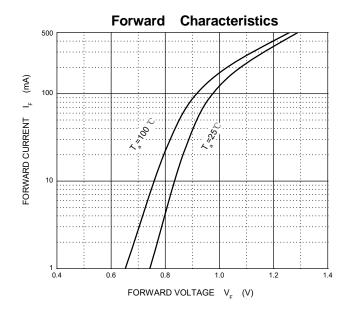
#### Maximum Ratings @Ta=25℃

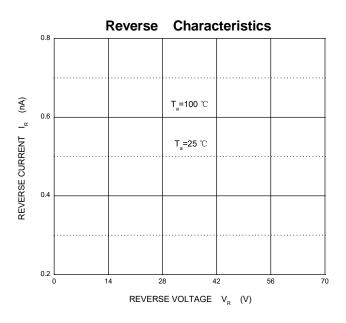
| Parameter  | Symbol           | Limit    | Unit |
|--|------------------|----------|------|
| Non-Repetitive Peak Reverse Voltage                | $V_{RM}$         | 70       | V    |
| DC Blocking Voltage                                | V <sub>R</sub>   | 70       | V    |
| Forward Continuous Current                         | I <sub>FM</sub>  | 500      | mA   |
| Average Rectified Output Current                   | I <sub>0</sub>   | 215      | mA   |
| Non-Repetitive Peak Forward Surge Current @t=8.3ms | <b>I</b> FSM     | 1.0      | А    |
| Power Dissipation                                  | $P_D$            | 200      | mW   |
| Junction Temperature                               | TJ               | 150      | °C   |
| Storage Temperature Range                          | T <sub>STG</sub> | -55~+150 | °C   |

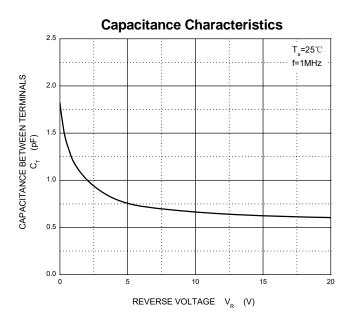
#### **ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)**

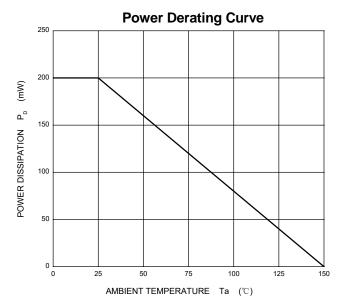
| Parameter                       | Symbol            | Test conditions                             | Min | Max                         | Unit |
|---------------------------------|-------------------|---|-----|-----------------------------|------|
| Reverse breakdown voltage       | V <sub>(BR)</sub> | I <sub>R</sub> = 100μA                      | 70  |                             | ٧    |
| Reverse voltage leakage current | I <sub>R</sub>    | V <sub>R</sub> =70V                         |     | 5                           | nA   |
| Forward voltage                 | V <sub>F</sub>    | $I_F=1mA$ $I_F=10mA$ $I_F=50mA$ $I_F=150mA$ |     | 900<br>1000<br>1100<br>1250 | mV   |
| Diode capacitance               | C <sub>D</sub>    | V <sub>R</sub> =0, f=1MHz                   |     | 2                           | pF   |
| Reverse recovery time           | t <sub>rr</sub>   | I <sub>F</sub> = I <sub>R</sub> =10mA       |     | 3                           | μs   |





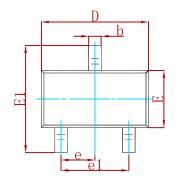


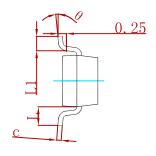


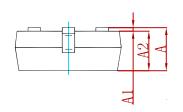




#### **PACKAGE MECHANICAL DATA**

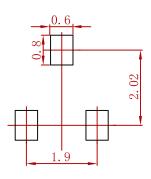






| Symbol | Dimensions | In Millimeters | Dimensions In Inches |       |  |
|--------|------------|----------------|----------------------|-------|--|
| Symbol | Min        | Max            | Min                  | Max   |  |
| Α      | 0.900      | 1.150          | 0.035                | 0.045 |  |
| A1     | 0.000      | 0.100          | 0.000                | 0.004 |  |
| A2     | 0.900      | 1.050          | 0.035                | 0.041 |  |
| b      | 0.300      | 0.500          | 0.012                | 0.020 |  |
| С      | 0.080      | 0.150          | 0.003                | 0.006 |  |
| D      | 2.800      | 3.000          | 0.110                | 0.118 |  |
| Е      | 1.200      | 1.400          | 0.047                | 0.055 |  |
| E1     | 2.250      | 2.550          | 0.089                | 0.100 |  |
| е      | 0.950      | ) TYP          | 0.037                | 7 TYP |  |
| e1     | 1.800      | 2.000          | 0.071                | 0.079 |  |
| L      | 0.550 REF  |                | 0.022 REF            |       |  |
| L1     | 0.300      | 0.500          | 0.012                | 0.020 |  |
| θ      | 0°         | 8°             | 0°                   | 8°    |  |

### **Suggested Pad Layout**



- 1.Controlling dimension:in millimeters.2.General tolerance:± 0.05mm.3.The pad layout is for reference purposes only.

#### **REEL SPECIFICATION**

| P/N    | PKG    | QTY  |
|--------|--------|------|
| BAV199 | SOT-23 | 3000 |



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