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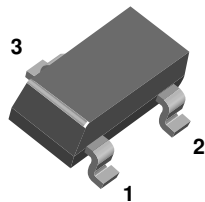


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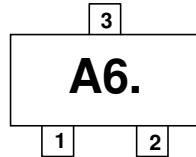
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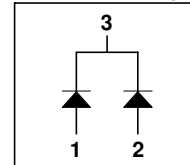
MMBD2838



SOT-23



Connection Diagram



Small Signal Diode

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Value | Units |
|-------------|--------------------------------------------------------------------------------------------------------|-------------|------------------|
| V_{RRM} | Maximum Repetitive Reverse Voltage | 75 | V |
| $I_{F(AV)}$ | Average Rectified Forward Current | 200 | mA |
| I_{FSM} | Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond | 1.0 | A |
| | | 2.0 | A |
| T_{stg} | Storage Temperature Range | -55 to +150 | $^\circ\text{C}$ |
| T_J | Operating Junction Temperature | -55 to +150 | $^\circ\text{C}$ |

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

NOTES:

- 1) These ratings are based on a maximum junction temperature of 150 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Thermal Characteristics

| Symbol | Parameter | Value | Units |
|-----------------|-----------------------------------------|-------|---------------------------|
| P_D | Power Dissipation | 350 | mW |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient | 357 | $^\circ\text{C}/\text{W}$ |

Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Test Conditions | Min | Max | Units |
|----------|-----------------------|------------------------------------------------------------------------|-----|-----|-------|
| V_R | Breakdown Voltage | $I_R = 100 \mu\text{A}$ | 75 | | V |
| V_F | Forward Voltage | $I_F = 50 \text{ mA}$ | | 1.0 | V |
| | | $I_F = 100 \text{ mA}$ | | 1.2 | V |
| I_R | Reverse Current | $V_R = 50 \text{ V}$ | | 100 | nA |
| C_T | Total Capacitance | $V_R = 0, f = 1.0 \text{ MHz}$ | | 4.0 | pF |
| t_{rr} | Reverse Recovery Time | $I_F = I_R = 10 \text{ mA}, I_{RR} = 1.0 \text{ mA}, R_L = 100 \Omega$ | | 4.0 | ns |

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