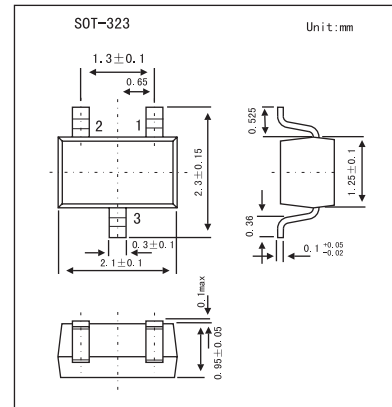
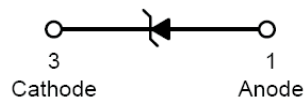


200mW Surface Mount Zener Diode

MMBZ5251BW

■ Features

- Planar Die Construction
- General Purpose, Medium Current
- Ideally Suited for Automated Assembly Processes



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit |
|--|-----------------|-------------|---------------------------|
| Forward Voltage @ $I_F = 10\text{mA}$ | V_F | 0.9 | V |
| Power Dissipation *1 | P_d | 200 | mW |
| Thermal Resistance, Junction to Ambient Air *1 | $R_{\theta JA}$ | 625 | $^\circ\text{C}/\text{W}$ |
| Operating and Storage Temperature Range | T_j, T_{STG} | -65 to +150 | $^\circ\text{C}$ |

*1. Part mounted on FR-4 PC board with recommended pad layout

■ Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

| Type Number | Zener Voltage Range *1 | | | | Maximum Zener Impedance *2 | | Maximum Reverse Leakage Current *1 | |
|-------------|------------------------|---------|---------|----------|----------------------------|-----------------------------------|------------------------------------|---------|
| | $V_z @ I_{ZT}$ | | | I_{ZT} | $Z_{ZT} @ I_{ZT}$ | $Z_{ZK} @ I_{ZK} = 0.25\text{mA}$ | I_R | @ V_R |
| | Nom (V) | Min (V) | Max (V) | mA | Ω | | μA | V |
| MMBZ5251BW | 22 | 20.9 | 23.1 | 5.6 | 29 | 600 | 0.1 | 17 |

*1. Short duration test pulse used to minimize self-heating effect.

*2. $f = 1\text{KHz}$.

■ Marking

| | |
|---------|-----|
| Marking | KK1 |
|---------|-----|

MMBZ5251BW

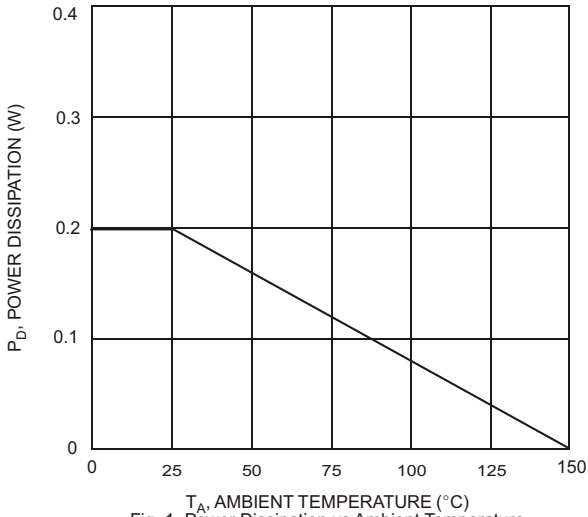


Fig. 1 Power Dissipation vs Ambient Temperature

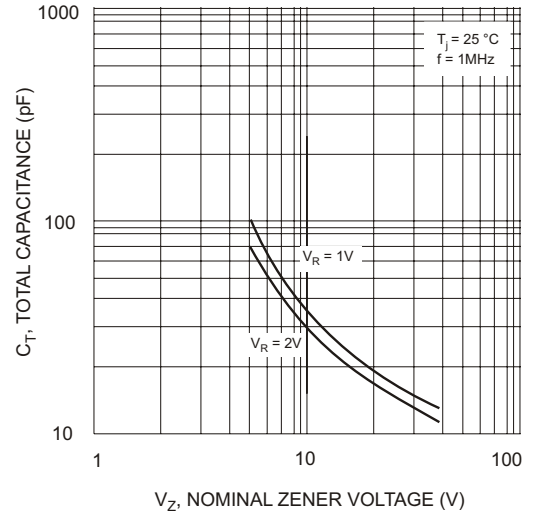


Fig. 2 Total Capacitance vs Nominal Zener Voltage

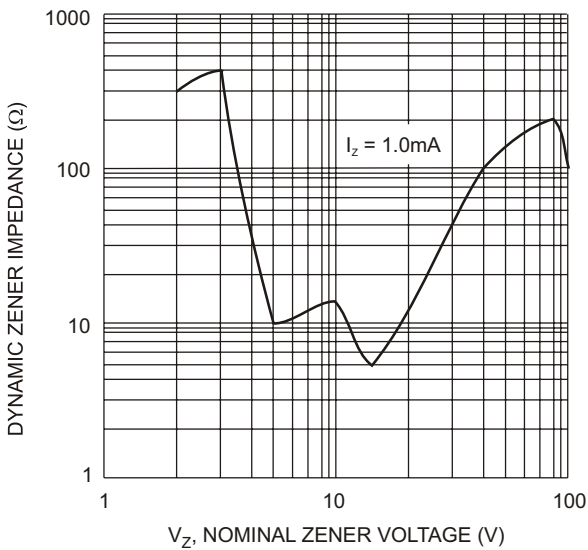


Fig. 3 Zener Voltage vs. Zener Impedance

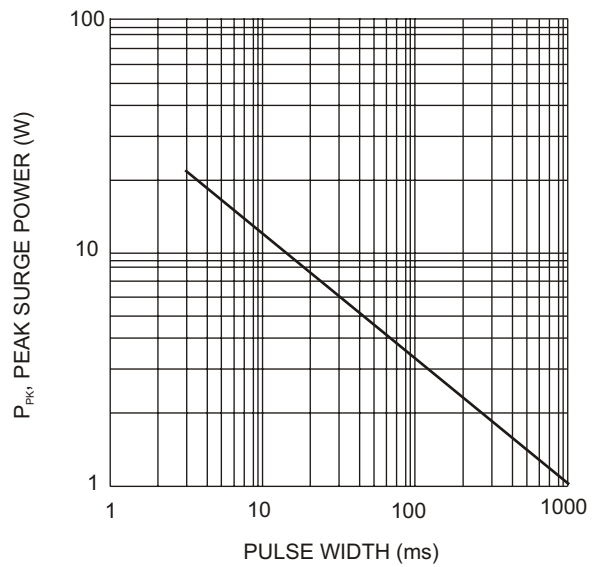


Fig. 4 Maximum Non-repetitive Surge Power

MMBZ5251BW

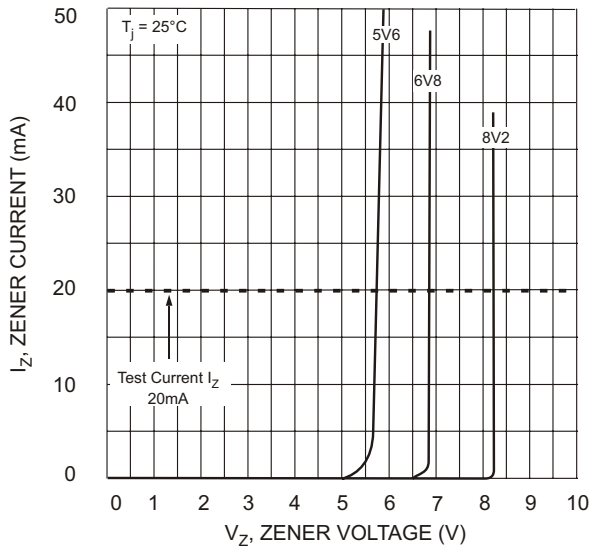


Fig. 5 Zener Breakdown Characteristics

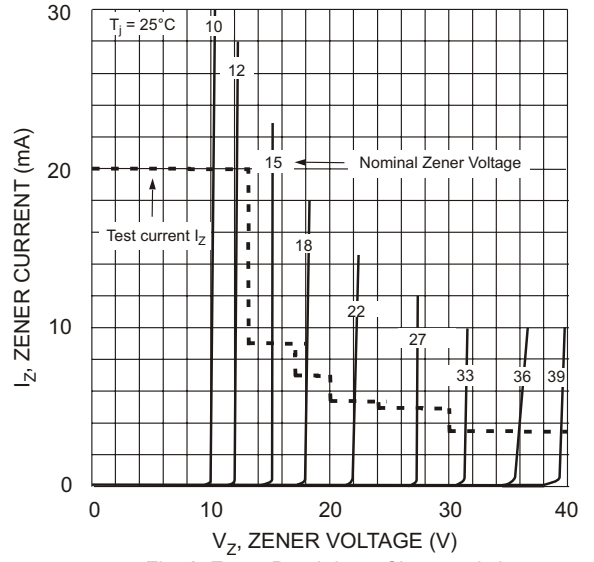


Fig. 6 Zener Breakdown Characteristics