

# Surface Mount Zener Diode

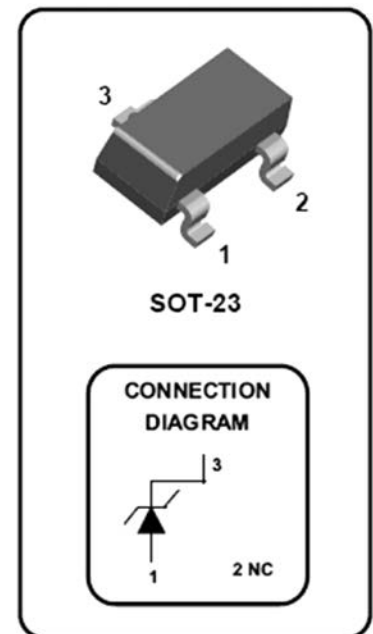


## Features:

- Planar Die Construction
- 350mW Power Dissipation
- General Purpose, Medium Current
- Ideally Suited for Automated Assembly Processes

## Application:

350mW Surface mount zener diode



## Maximum Rating @ Ta = 25°C unless otherwise specified

| Characteristic                              | Symbol          | Value       | Unit |
|---------------------------------------------|-----------------|-------------|------|
| Forward voltage @ $I_F = 10\text{mA}$       | $V_F$           | 0.9         | V    |
| Power dissipation                           | $P_D$           | 350         | mW   |
| Thermal resistance, junction to ambient air | $R_{\theta JA}$ | 357         | °C/W |
| Operating and storage temperature range     | $T_j, T_{stg}$  | -65 to +150 | °C   |

**Note :** Valid provided that device terminals are kept at ambient temperature.  
Tested with pulses,  $T_p \leq 1\text{ms}$ .

## Electrical Characteristics @ Ta = 25°C unless otherwise specified

| Type Number | Marking Code | Zener Voltage Range |        |        |          | Maximum Zener Impedance |                                   | Maximum Reverse Leakage Current |         |
|-------------|--------------|---------------------|--------|--------|----------|-------------------------|-----------------------------------|---------------------------------|---------|
|             |              | $V_Z @ I_{ZT}$      |        |        | $I_{ZT}$ | $Z_{ZT} @ I_{ZT}$       | $Z_{ZK} @ I_{ZK} = 0.25\text{mA}$ | $I_R$                           | @ $V_R$ |
|             |              | Nom(V)              | Min(V) | Max(V) | (mA)     | ( $\Omega$ )            |                                   | ( $\mu\text{A}$ )               | (V)     |
| MMBZ5231B   | KE1          | 5.1                 | 4.85   | 5.36   | 20       | 17                      | 1,600                             | 5                               | 2       |

# Surface Mount Zener Diode



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

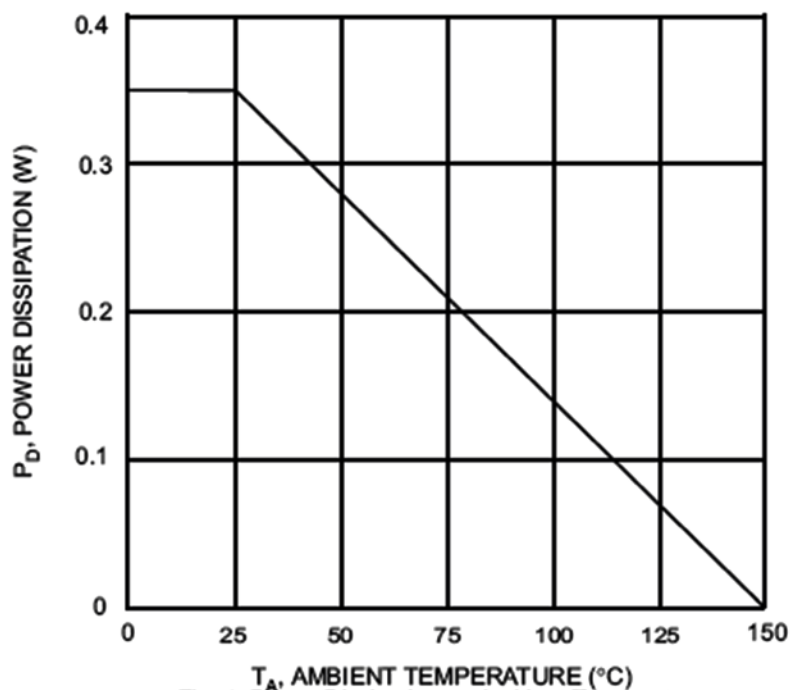
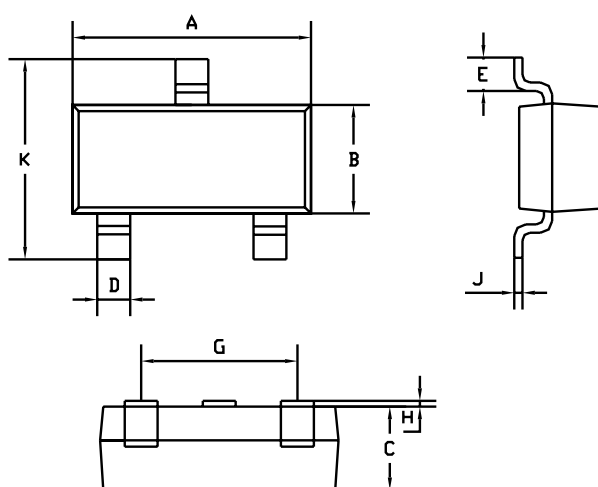


Fig. 1 Power Dissipation vs Ambient Temperature

## Package Outline

Plastic surface mounted package

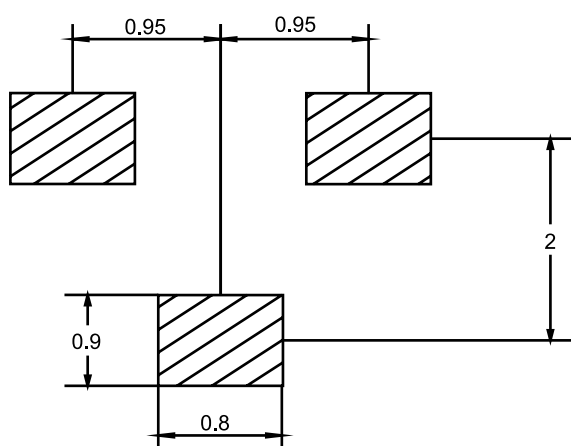


| SOT-23               |             |      |
|----------------------|-------------|------|
| Dim                  | Min         | Max  |
| A                    | 2.85        | 2.95 |
| B                    | 1.25        | 1.35 |
| C                    | 1 Typical   |      |
| D                    | 0.37        | 0.43 |
| E                    | 0.35        | 0.48 |
| G                    | 1.85        | 1.95 |
| H                    | 0.02        | 0.1  |
| J                    | 0.1 Typical |      |
| K                    | 2.35        | 2.45 |
| All Dimensions in mm |             |      |

# Surface Mount Zener Diode



## Soldering Footprint



Dimensions : Millimetres

## Package Information

| Device        | Package | Shipping          |
|---------------|---------|-------------------|
| MMBZ5231B-7-F | SOT-23  | 3,000/Tape & Reel |

## Part Number Table

| Description                     | Part Number   |
|---------------------------------|---------------|
| 350mW Surface Mount Zener Diode | MMBZ5231B-7-F |

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