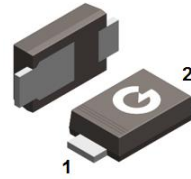
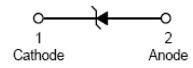


## Features

- Tight voltage tolerance:  $\pm 5\%$
- Ultra low-profile package well suited for automated assembly
- Moisture sensitivity level 1
- RoHS compliant with Halogen-free

HF



SOD-323T

## Mechanical Data

- Case: SOD-323T
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

## Ordering Information

| Part Number | Package  | Shipping Quantity      | Marking Code |
|-------------|----------|------------------------|--------------|
| MMSZ4704HE  | SOD-323T | 4000 pcs / Tape & Reel | DP           |

## Thermal Characteristics

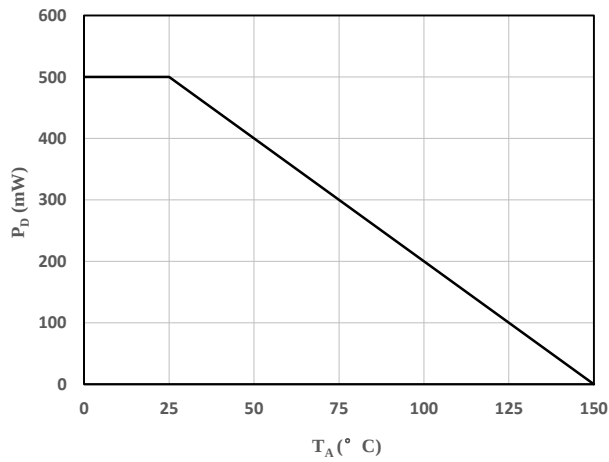
| Parameter                                         | Symbol          | Value      | Unit                 |
|---------------------------------------------------|-----------------|------------|----------------------|
| Power Dissipation                                 | $P_D$           | 500        | mW                   |
| Thermal Resistance Junction-to-Air <sup>*1</sup>  | $R_{\theta JA}$ | 100        | $^{\circ}\text{C/W}$ |
| Thermal Resistance Junction-to-Case <sup>*1</sup> | $R_{\theta JC}$ | 52         | $^{\circ}\text{C/W}$ |
| Thermal Resistance Junction-to-Lead <sup>*1</sup> | $R_{\theta JL}$ | 39         | $^{\circ}\text{C/W}$ |
| Operating Junction Temperature Range              | $T_J$           | -55 ~ +150 | $^{\circ}\text{C}$   |
| Storage Temperature Range                         | $T_{STG}$       | -65 ~ +150 | $^{\circ}\text{C}$   |

Note 1: The data tested by surface mounted on a 25.4mm \* 25.4mm \* 1mm FR4-epoxy P.C.B

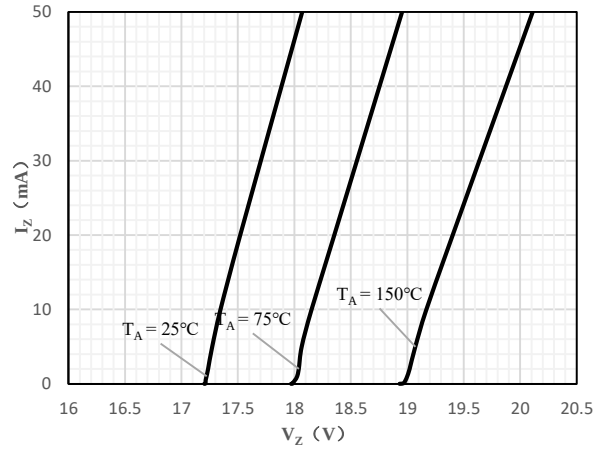
## Electrical Characteristics (@ $T_A = 25^{\circ}\text{C}$ unless otherwise specified)

| Parameter               | Symbol | Test Condition           | Min.  | Typ.  | Max.  | Unit                         |
|-------------------------|--------|--------------------------|-------|-------|-------|------------------------------|
| Zener Voltage           | $V_Z$  | $I_{ZT} = 50\mu\text{A}$ | 16.15 | 17.00 | 17.85 | V                            |
| Forward Voltage         | $V_F$  | $I_F = 10\text{mA}$      | -     | -     | 0.9   | V                            |
| Maximum Reverse Current | $I_R$  | $V_R = 12.9\text{V}$     | -     | -     | 0.05  | $\mu\text{A}$                |
| Temperature Coefficient | $T_C$  | $I_{ZT} = 50\mu\text{A}$ | -     | 13.83 | -     | $\text{mV}/^{\circ}\text{C}$ |

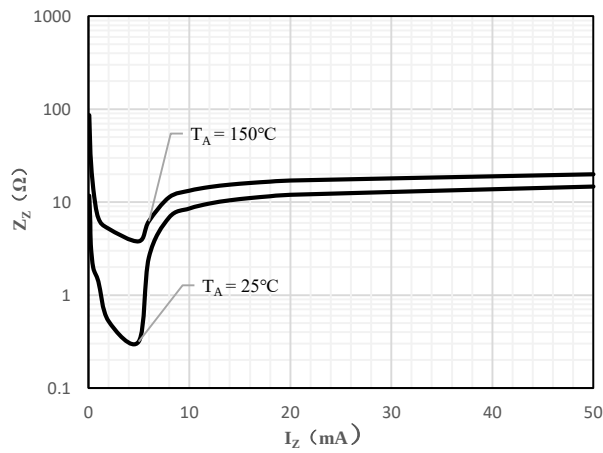
**TYPICAL CHARACTERISTICS** (@  $T_A = 25^\circ\text{C}$  unless otherwise specified)



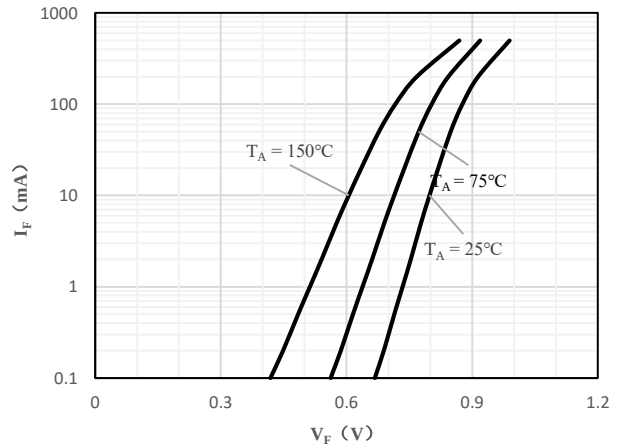
**Fig 1 Steady State Power Derating**



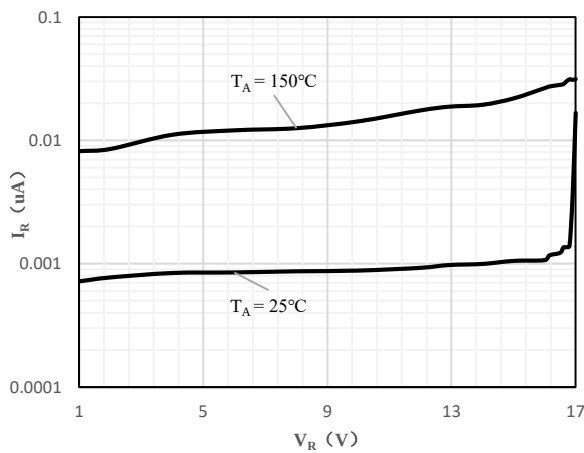
**Fig 2 Typical Zener Breakdown Characteristics**



**Fig 3 Zener Impedance vs. Zener Current**

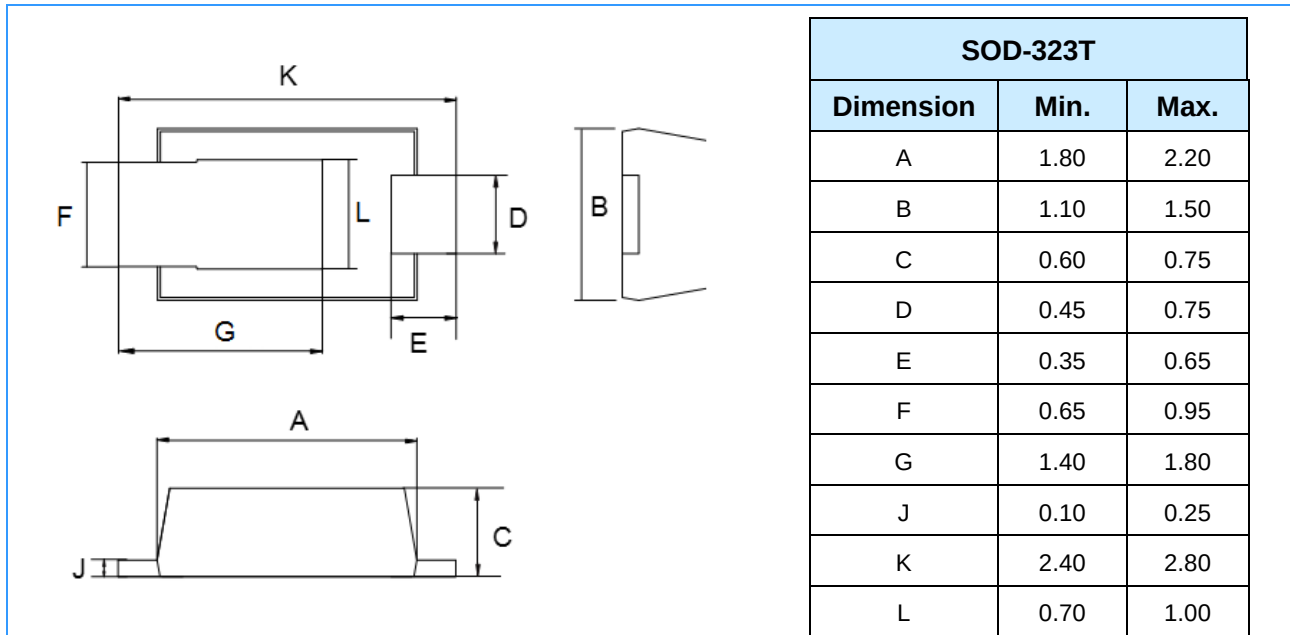


**Fig 4 Typical Forward Characteristics**

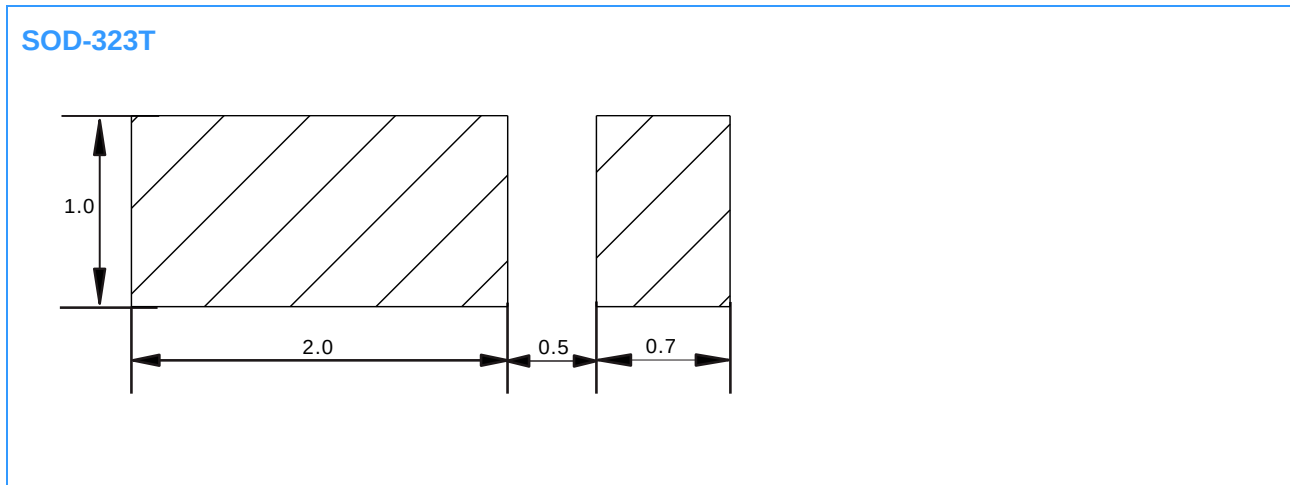


**Fig 5 Typical Reverse Characteristics**

## Package Outline Dimensions (Unit: mm)



## Mounting Pad Layout (Unit: mm)



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