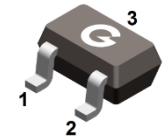
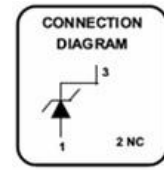


Features

- Tight voltage tolerance: $\pm 5\%$
- Ultra low-profile package well suited for automated assembly
- Halogen free
- Qualified to AEC-Q101 standards for high reliability

HF



SOT-323

Mechanical Data

- Case: SOT-323
- 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
TMMBZ5237BW	SOT-323	3000 pcs / Tape & Reel	KF2

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation *1	P_D	200	mW
Thermal Resistance Junction-to-Air *1	$R_{\theta JA}$	625	$^{\circ}\text{C/W}$
Thermal Resistance Junction-to-Air *2	$R_{\theta JA}$	270	$^{\circ}\text{C/W}$
Thermal Resistance Junction-to-Case *2	$R_{\theta JC}$	175	$^{\circ}\text{C/W}$
Thermal Resistance Junction-to-Lead *2	$R_{\theta JL}$	200	$^{\circ}\text{C/W}$
Operating Junction Temperature Range	T_J	-55 ~ +150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-65 ~ +150	$^{\circ}\text{C}$

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Zener Voltage	V_Z	$I_{ZT} = 20\text{mA}$	7.79	8.2	8.61	V
Forward Voltage	V_F	$I_F = 10\text{mA}$	-	-	0.9	V
Maximum Reverse Current	I_R	$V_R = 6.5\text{V}$	-	-	3	μA
Maximum Zener Impedance	Z_{ZT}	$I_{ZT} = 20\text{mA}$	-	-	8	Ω
Maximum Zener Impedance	Z_{ZK}	$I_{ZK} = 0.25\text{mA}$	-	-	500	Ω
Temperature Coefficient	T_C	$I_{ZT} = 20\text{mA}$	-	4.21	-	$\text{mV}/^{\circ}\text{C}$

Notes:

1. The data tested by surface mounted on a minimum recommended FR-4 board
2. The data tested by surface mounted on a 1 inch² FR-4 board with 2OZ copper

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

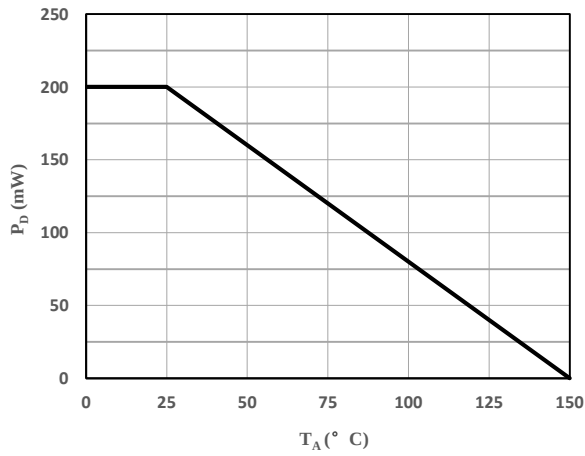


Fig 1 Steady State Power Derating

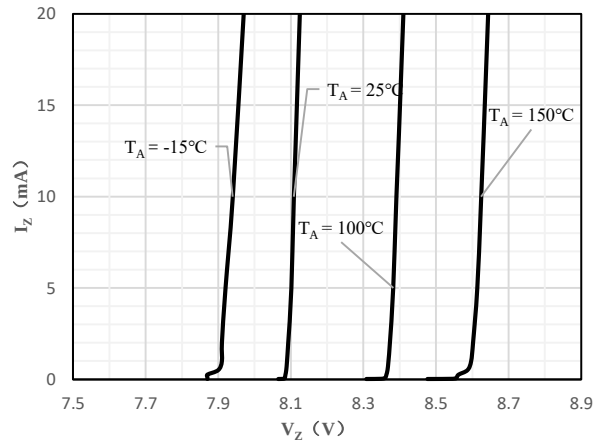


Fig 2 Typical Zener Breakdown Characteristics

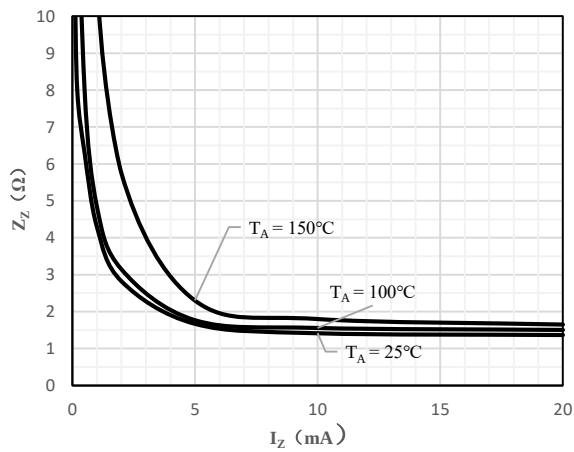


Fig 3 Zener Impedance vs. Zener Current

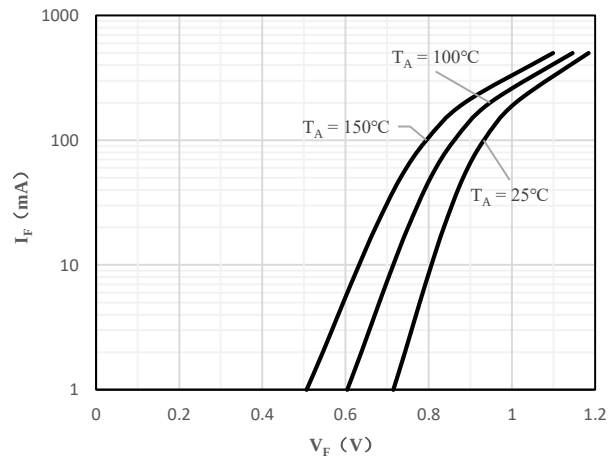


Fig 4 Typical Forward Characteristics

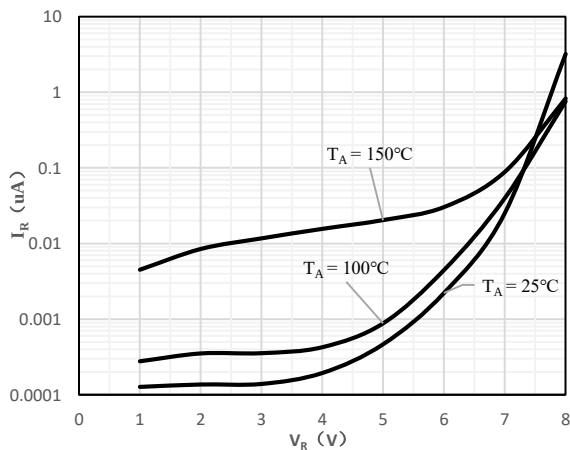
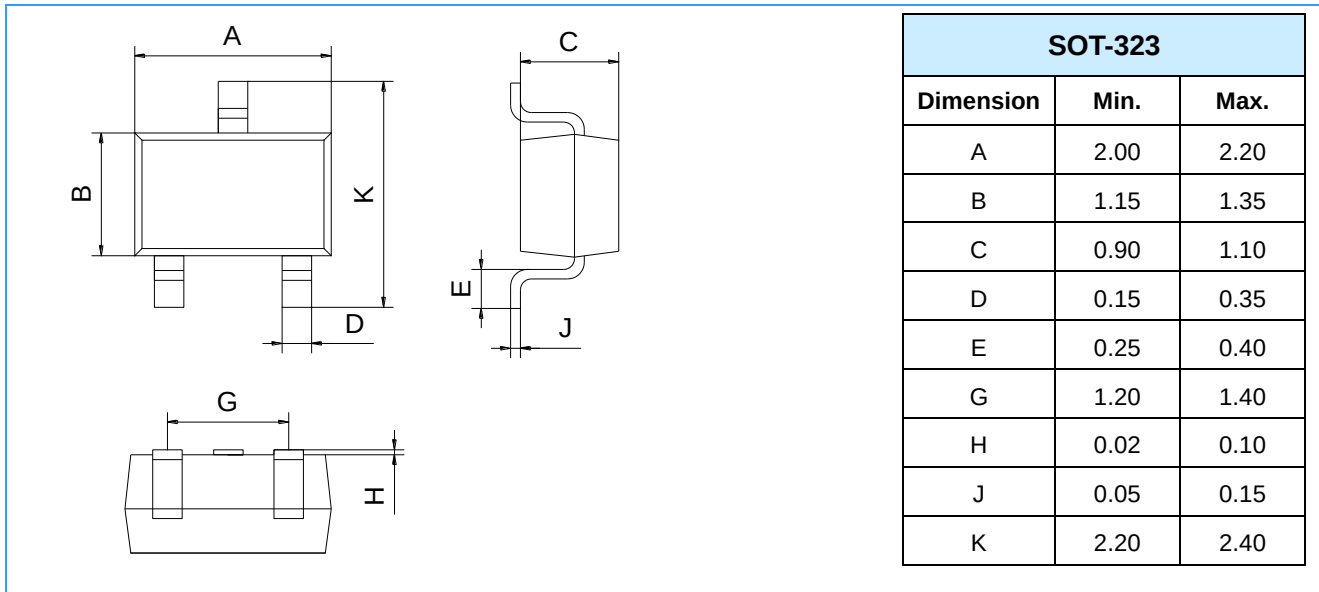
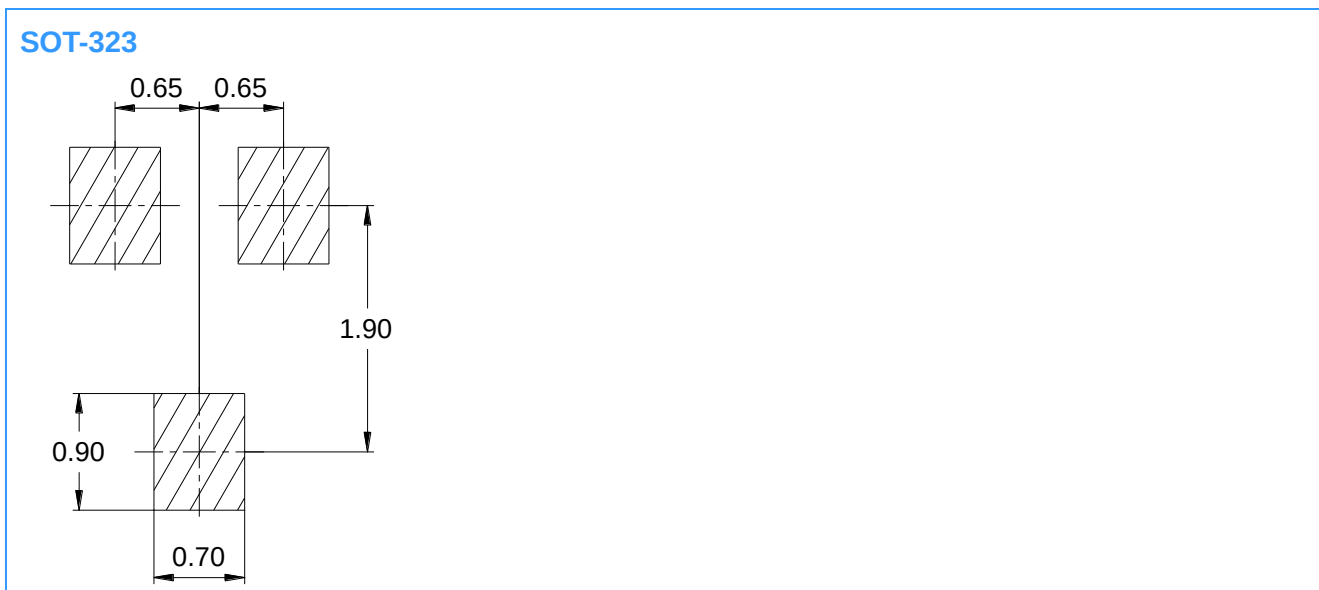


Fig 5 Typical Reverse Characteristics

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



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