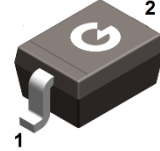


Features

- Low reverse current
- Low power loss
- High efficiency
- Low stored charge, majority carrier conduction
- Highly stable oxide passivated junction
- RoHS compliant with Halogen-free
- Qualified to AEC-Q101 Standards

HF

Cathode 1 —> Anode 2



SOD-323

Mechanical Data

- Case: SOD-323
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
TMBR160SH	SOD-323	3000 pcs / Tape & Reel	160H

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	60	V
Working Peak Reverse Voltage	V _{RWM}	60	V
DC Reverse Voltage	V _R	60	V
RMS Reverse Voltage	V _{RMS}	42	V
Maximum Average Forward Output Current	I _{F(AV)}	1	A
Peak Forward Surge Current (8.3ms single half sine-wave)	I _{FSM}	20	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation (T _A = 25°C)	P _D	0.25	W
Thermal Resistance Junction-to-Air ^{*1}	R _{θJA}	365	°C/W
Thermal Resistance Junction-to-Case ^{*1}	R _{θJC}	189	°C/W
Thermal Resistance Junction-to-Lead ^{*1}	R _{θJL}	258	°C/W
Operating Junction Temperature	T _J	-55 ~ +150	°C
Storage Temperature Range	T _{STG}	-65 ~ +150	°C

Note 1: The data tested by surface mounted on a 15mm * 15mm * 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
Forward Voltage	V_F	$I_F = 0.1\text{A}$	-	-	0.45	V
		$I_F = 0.7\text{A}$	-	-	0.58	V
		$I_F = 1\text{A}$	-	-	0.65	V
		$I_F = 3\text{A}$	-	-	1.00	V
Maximum Peak Reverse Current *1	I_R	$V_R = 60\text{V}, T_J = 25^\circ\text{C}$	-	-	50	μA
		$V_R = 60\text{V}, T_J = 125^\circ\text{C}$	-	-	5	mA

Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

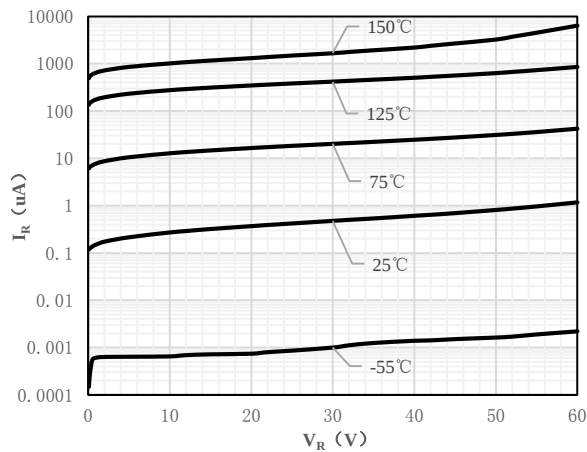


Fig 1 Typical Reverse Characteristic

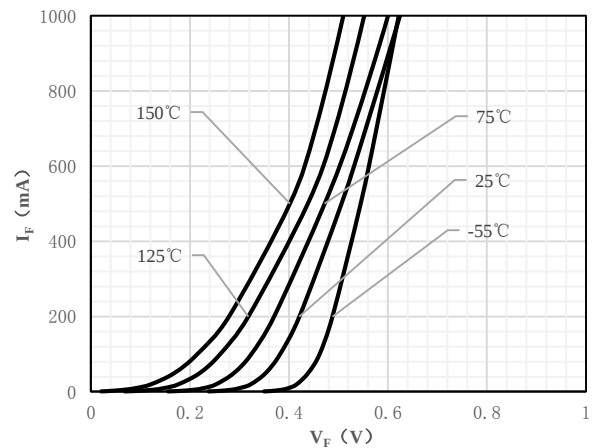


Fig 2 Typical Forward Characteristics

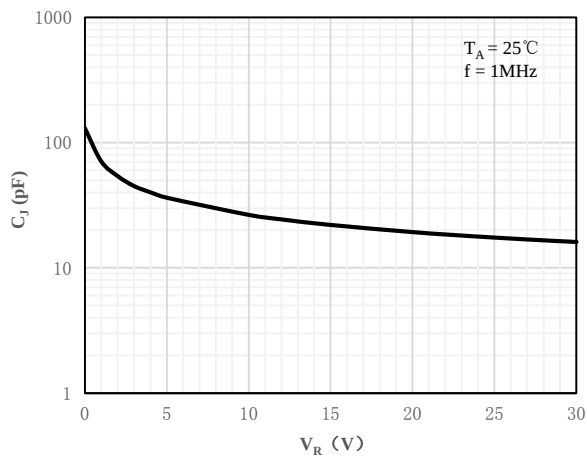


Fig 3 Capacitance vs. Reverse Voltage

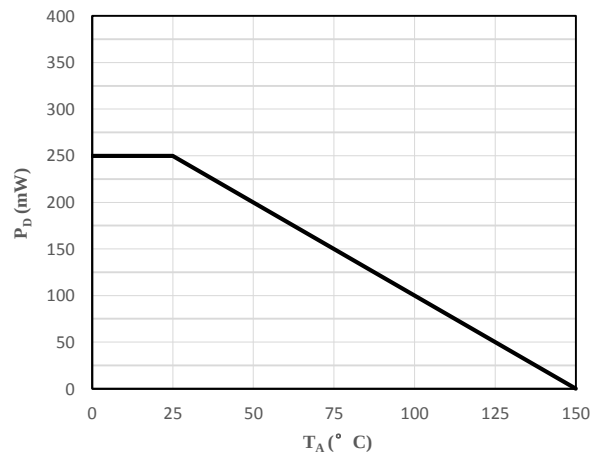
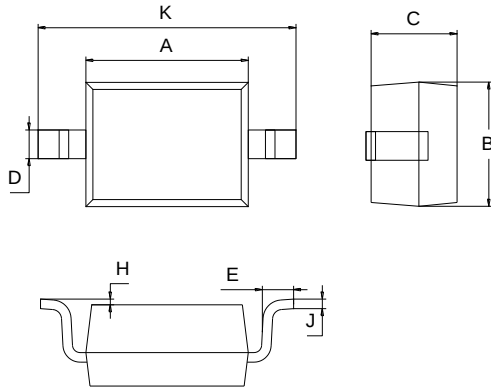


Fig 4 Power Derating Curve

Package Outline Dimensions (Unit: mm)



SOD-323		
Dimension	Min.	Max.
A	1.60	1.80
B	1.20	1.40
C	0.80	0.90
D	0.25	0.35
E	0.22	0.42
H	0.02	0.10
J	0.05	0.15
K	2.55	2.75

Mounting Pad Layout (Unit: mm)

SOD-323

