FUXINSEMI
INNOVATOR IN SEMICONDUCTOR

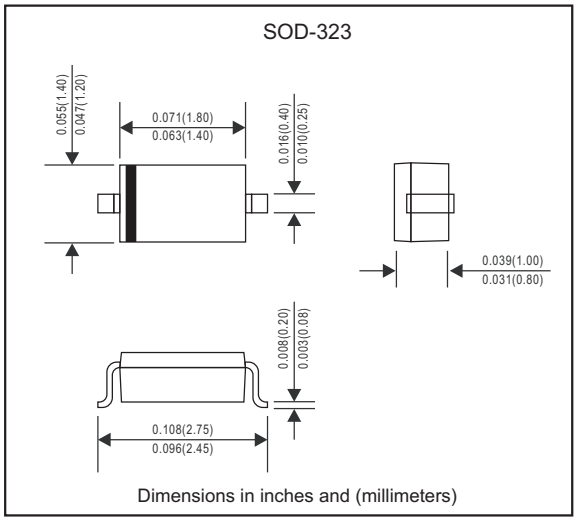
SD103AWS / BWS / CWS

SMD Small Signal Schottky Diode

Features

- For use in low voltage, high frequency inverters
- Free wheeling, and polarity protection applications

Package outline



Mechanical data

- **Case**: JEDEC SOD-323 molded plastic body
- **Terminals**: Solder plated, solderable per MIL-STD-750, Method 2026
- **Polarity**: Color band denotes cathode end
- **Mounting Position**: Any

Maximum ratings and Electrical Characteristics (AT T_A=25°C unless otherwise noted)

Parameter	Symbols	SD103AWS	SD103BWS	SD103CWS	Units
Peak Repetitive Reverse Voltage	V_{RRM}	40	30	20	V
RMS reverse voltage	V_{RMS}	28	21	14	V
Working Peak Reverse Voltage	V_{DC}	40	30	20	V
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	13			A
Maximum Instantaneous Forward Voltage I_F=20mA I_F=200mA	V_F	0.37 0.60			V
Power Dissipation	P_D	200			mW
Reverse current SD103AWS,V_R=30V SD103BWS,V_R=20V SD103CWS,V_R=10V	I_R	5 – –	– 5 –	– – 5	uA
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	300			°C/W
Reverse voltage I_R=100uA SD103AW SD103BW SD103CW	$V_{(BR)R}$	40 30 20			V
Reverse recovery time I_F=I_R=200mA,Irr=0.1xI_R,R_L=100Ω	trr	10			ns
Forward Continuons Current	I_{FM}	350			mA
Total capacitance V_R=0V.f=1MHz	C_{tot}	50			pF
Junction temperature	T_j	125			℃
Storage temperature	T_{stg}	-55 ~ +150			℃

Rating and characteristic curves

Fig.1 Power Derating Curve

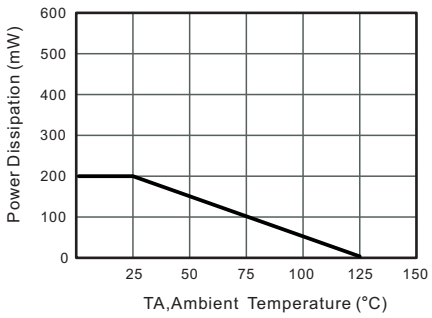


Fig.2 Typical Reverse Characteristics

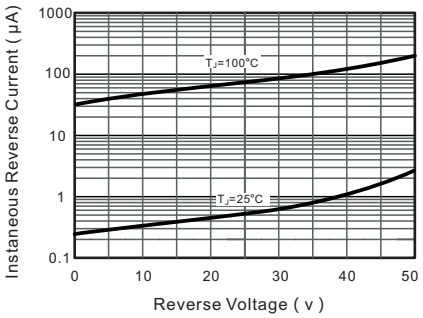


Fig.3 Forward Characteristics

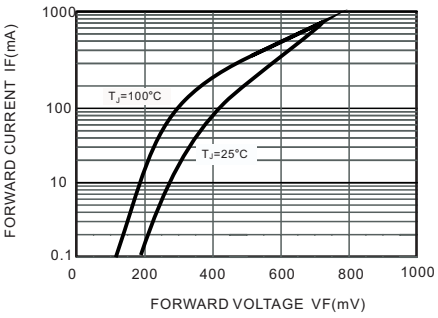


Fig.4 Maximum Non-Repetitive Peak Forward Surage Current

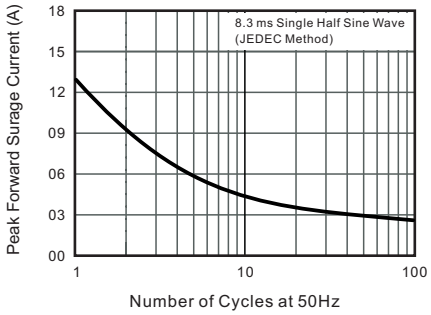


Fig.5 Typical Junction Capacitance

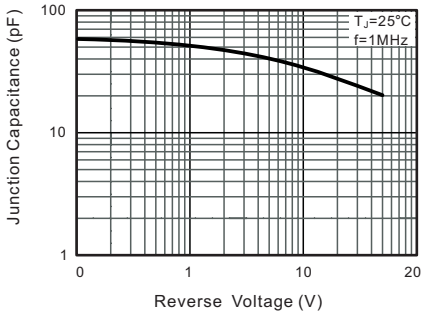
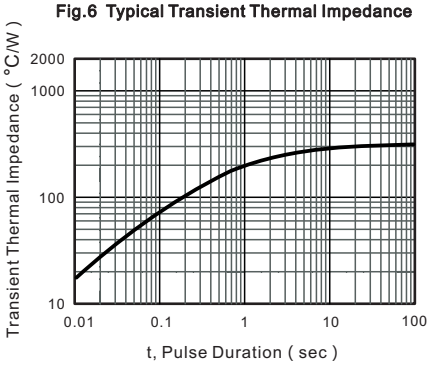


Fig.6 Typical Transient Thermal Impedance



Marking

Type number	Marking code
SD103AWS	S4
SD103BWS	S5
SD103CWS	S6