

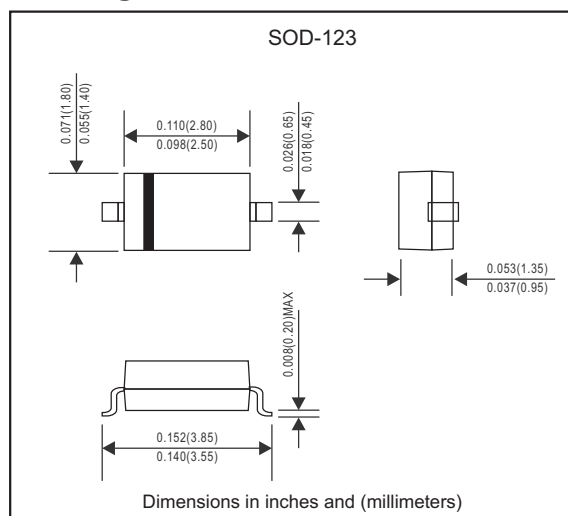
Features

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

Mechanical data

- ◆ **Case:** JEDEC SOD-123 molded plastic body
- ◆ **Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026
- ◆ **Polarity:** Color band denotes cathode end
- ◆ **Mounting Position:** Any

Package outline



Maximum ratings and Electrical Characteristics (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbols	SD103AW	SD103BW	SD103CW	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}	10			A
Maximum Instantaneous Forward Voltage I _F =20mA I _F =200mA	V _F	0.37 0.60			V
Power Dissipation	P _D	400			mW
Reverse current V _R =30V V _R =20V V _R =10V	I _R	5 — —	— 5 —	— — 5	uA
Thermal Resistance, Junction to Ambient Air	R _{θJA}	300			°C/W
Reverse voltage I _R =100uA SD103AW SD103BW SD103CW	V _(BR)	40 30 20			V
Reverse recovery time I _F =I _R =200mA, I _{rr} =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}	28			pF
Junction temperature	T _j	125			°C
Storage temperature	T _{stg}	-55 ~ +150			°C

Rating and characteristic curves

Fig.1 Power Derating Curve

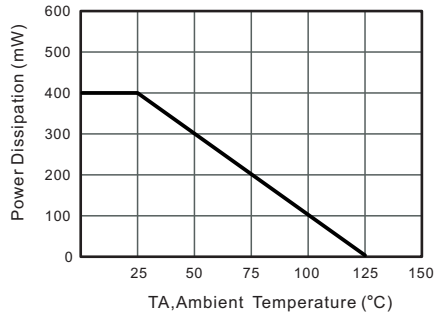


Fig.2 Typical Reverse Characteristics

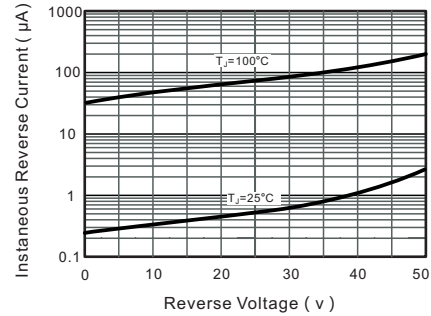


Fig.3 Forward Characteristics

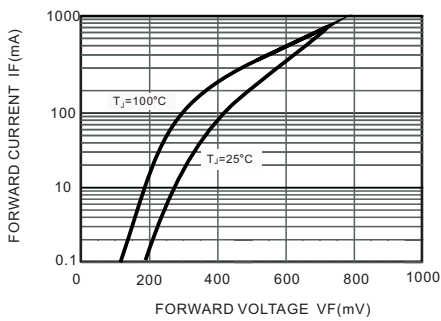


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current

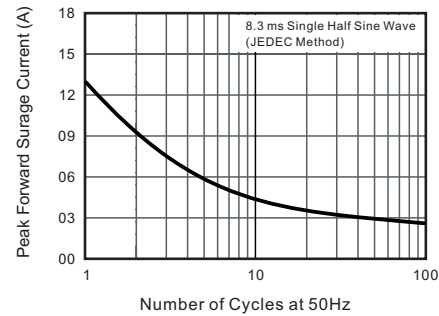


Fig.5 Typical Junction Capacitance

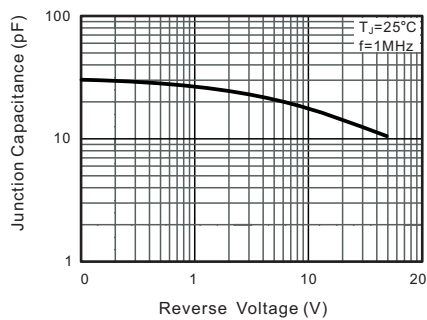
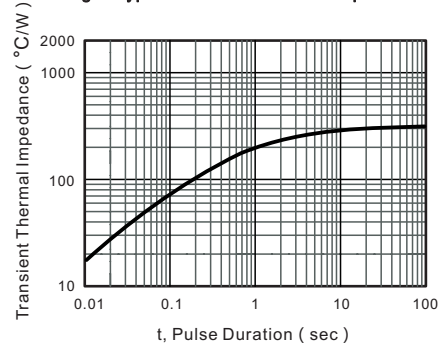


Fig.6 Typical Transient Thermal Impedance



Marking

Type number	Marking code
SD103AW	S4
SD103BW	S5
SD103CW	S6