

200mW High Speed Switching Diode
Reverse Voltage 100 Volts Forward Current 0.15 Ampere
Features

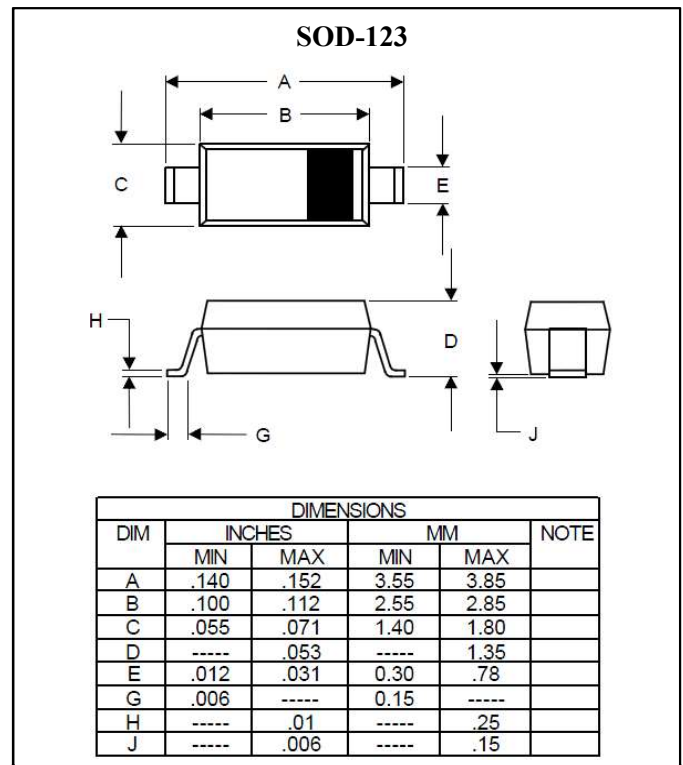
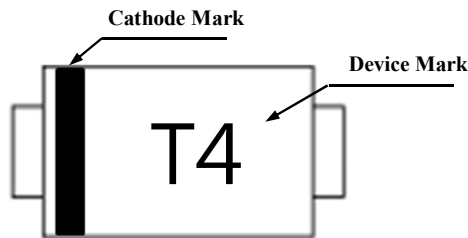
- High switching speed
- Surface mount package ideally suited for automatic insertion
- For general purpose switching applications

Typical Applications

- High-speed switching.

Mechanical Data

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Indicated by Cathode Band
- Weight: 0.01 grams (approx.)

Marking

Maximum Ratings & Electrical Characteristics (Ta=25°C unless otherwise noted)

Parameter	Symbol	Rated Value	Unit	Remark
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V	
Reverse Voltage	V_R	75	V	
Average Rectified Current	$I_{F(AV)}$	150	mA	
Peak Forward Surge Current < 1S	I_{FSM}	350	mA	
Power Dissipation	P_d	200	mW	
Thermal Resistance	$R_{th(j-a)}$	650	K/W	
Maximum Instantaneous Forward Voltage	V_F	1.0	V	$I_F=10mA$
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	25	nA	$V_R=20V, T_J=25^\circ C$
		5.0	uA	$V_R=75V, T_J=25^\circ C$
		50.0	uA	$V_R=20V, T_J=150^\circ C$
Typical Junction Capacitance	C_J	4.0	pF	Note 1
Maximum Voltage Rise When Switching on (Test with 50mA Pulse)	V_{fr}	2.5	V	Note 2
Maximum Reverse Recovery Time ($I_F=10mA, V_R=6V, R_L=100\Omega$)	t_{rr}	4.0	ns	
Maximum Rectification Efficiency ($f=100MHz, V_{RF}=2.0V$)	η	0.4		
Operation Junction Temperature Range	T_J	-55 to +150	°C	
Storage Temperature Range	T_{STG}	-55 to +150	°C	

Note 1. Measured at 1.0MHz and applied reverse voltage of Zero volts

Note 2. Measured at $T_p=0.1\mu s$, rise time < 30ns and $f_p=5$ to 100kHz

Ratings and Characteristics Curves ($T_a=25^\circ\text{C}$ unless otherwise noted)

Fig.1 Typical instantaneous forward characteristics

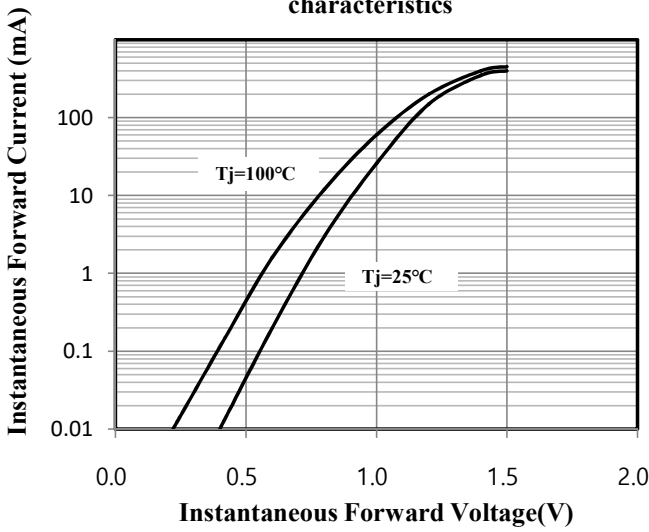


Fig.2 Dynamic forward resistance versus forward current

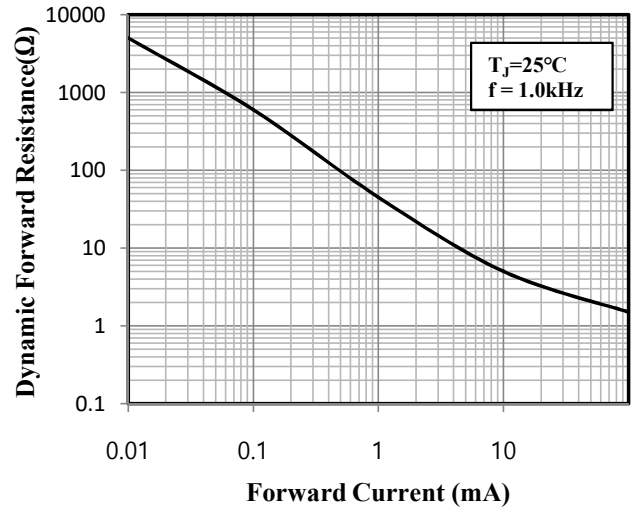


Fig.3 Admissible power dissipation versus ambient temperature

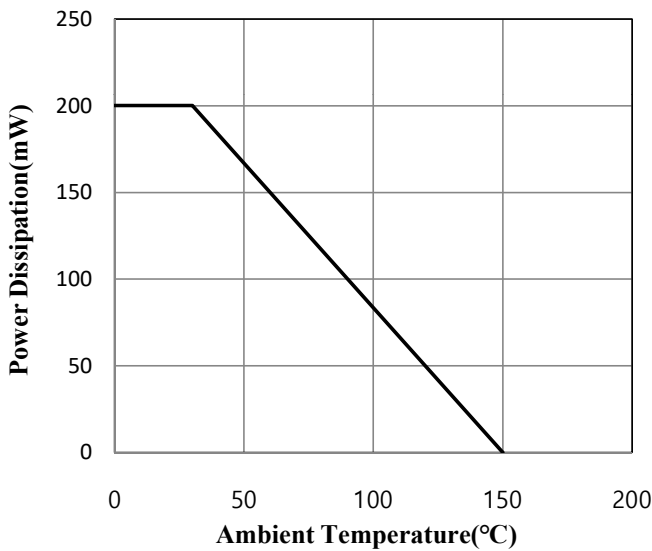


Fig.4 Relative capacitance versus reverse voltage

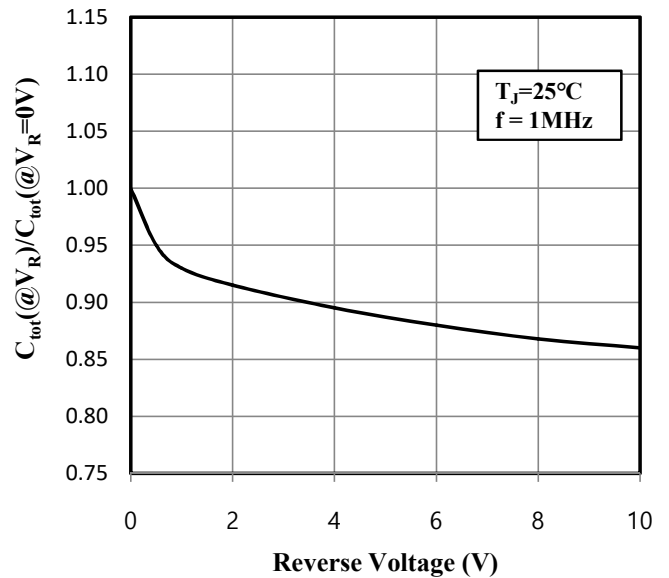


Fig.5 Leakage current versus junction temperature

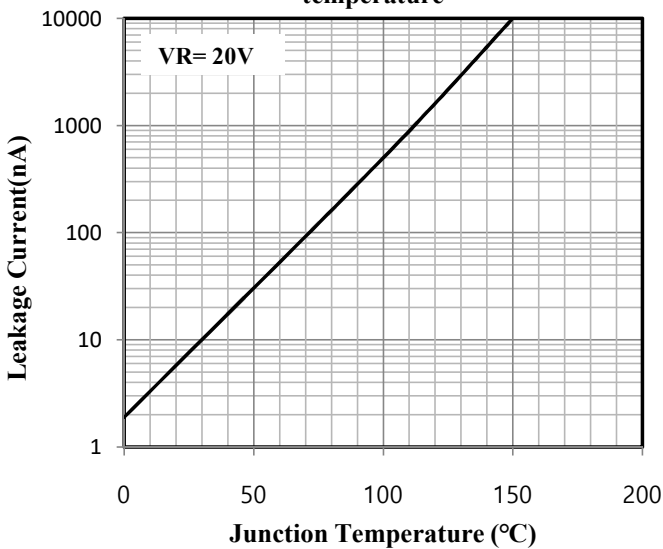


Fig.6 Admissible repetitive peak forward current versus pulse duration

