

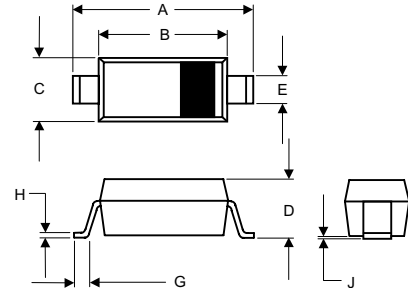
RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

SOD-123

FEATURES

- . Low forward voltage drop
- . Guard ring construction for transient protection
- . Negligible reverse recovery time
- . Low reverse capacitance



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	3.55	3.85	0.140	0.152
B	2.55	2.85	0.100	0.112
C	1.40	1.80	0.550	0.071
D	----	1.35	----	0.053
E	0.30	0.78	0.120	0.031
G	0.15	----	0.006	----
H	----	0.25	----	0.001
J	----	0.15	----	0.006

MECHANICAL DATA

- . Case: SOD-123, Molded plastic
- . Epoxy: UL 94V-0 rate flame retardant
- . Metallurgically bonded construction
- . Polarity: Color band denotes cathode end
- . Mounting position: Any

Device Marking:

SD103AW:S4
SD103BW:S5
SD103CW:S6

MAXIMUM RATINGS

Rating 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	SD103AW	SD103BW	SD103CW	UNIT
Peak Repetitive Reverse Voltage	V_{RRM}	40	30	20	V
Working Peak Reverse Voltage	V_{RWM}	40	30	20	
Maximum DC Blocking Voltage	V_R	40	30	20	
RMS Reverse Voltage	$V_{R(RMS)}$	28	21	14	
Forward Continuous Current (Note1)	I_{FM}	350			mA
Non-Repetitive Peak Forward Surge Current @ $t \leq 1.0s$	I_{FSM}	1.5			A
Power Dissipation (Note 1)	P_d	200			mW
Thermal Resistance, Junction to Ambient Air (Note1)	$R_{\theta JA}$	625			/ W
Operating Temperature Range	T_j	-65 ~ +125			
Storage Temperature Range	T_{STG}	-65 ~ +125			

● **ELECTRICAL CHARACTERISTICS**

TYPE NUMBER	SYMBOL	TEST CONDITION	Min.	Typ.	Max.	UNIT
Reverse Forward Voltage (Note2) SD103AW SD103BW SD103CW	$V_{(BR)R}$	$I_R=10\mu A$	40 30 20	-	-	V
Forward Voltage Drop	V_{FM}	$I_F=20mA$ $I_F=200mA$	-	-	0.37 0.60	V
Peak Reverse Current SD103AW SD103BW SD103CW	I_{RM}	$V_R=30V$ $V_R=20V$ $V_R=10V$	-	-	5.0	μA
Junction Capacitance	C_j	$V_R=0V, f=1.0MHz$	-	50	-	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=200mA,$ $I_{tr}=0.1 \times I_R, R_L=100\Omega$	-	10	-	ns

Note:

1. Valid provided that leads are kept at ambient temperature.
2. Test period < 3000 s.

● **RATING AND CHARACTERISTIC CURVES (SD103AW THRU SD103CW)**

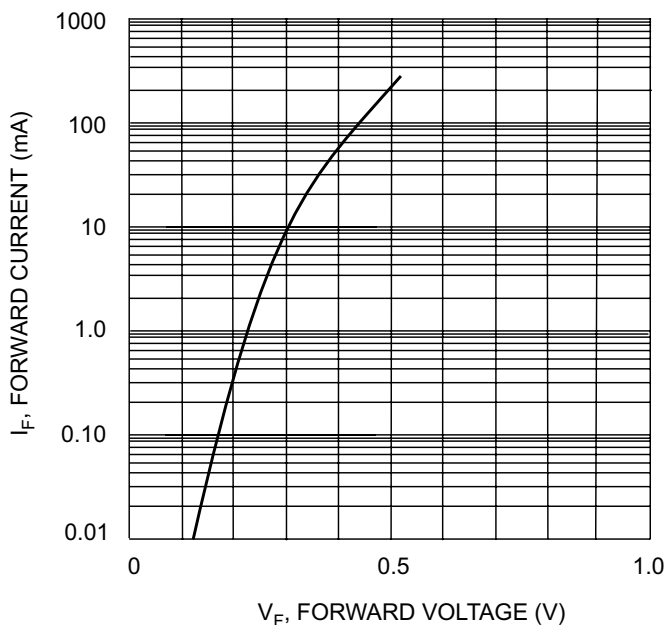


Fig. 1 Typical Forward Characteristics

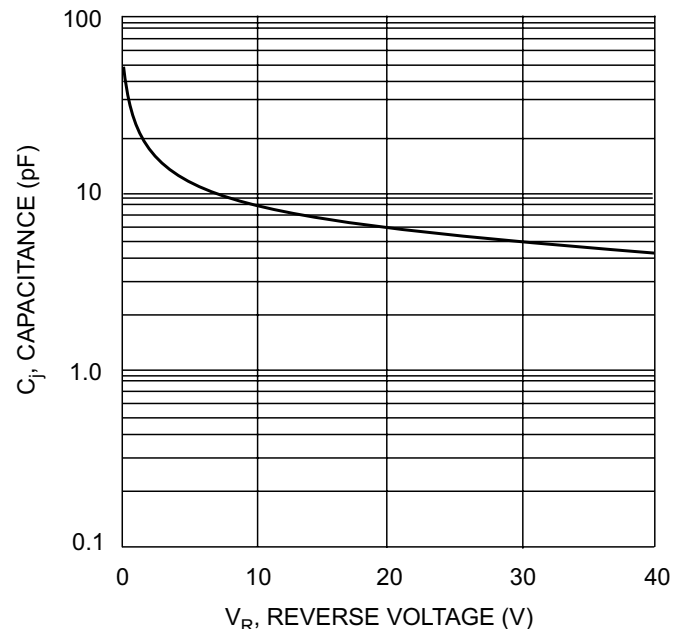


Fig. 2 Typ. Junction Capacitance vs Reverse Voltage