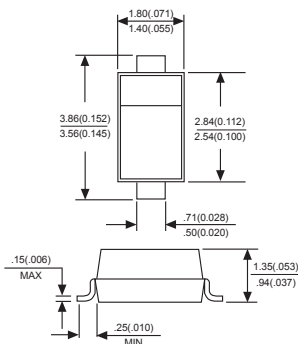


SOD-123



Dimensions in millimeters and (inches)

FEATURES

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

MECHANICAL DATA

Case: Molded plastic body

Terminals: Plated leads solderable per MIL-STD-750, Method 2026

Polarity: Polarity symbols marked on case

Marking: SD101AW:S1, SD101BW:S2, SD101CW:S3

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum ratings and electrical characteristics, Single diode @ $T_A=25^\circ\text{C}$

PARAMETER	SYMBOLS	SD101AW	SD101BW	SD101CW	UNITS
Peak repetitive peak reverse voltage	V_{RRM}				VOLTS
Working peak reverse voltage	V_{RWM}	60	50	40	
DC Blocking voltage	V_{DC}				
RMS Reverse voltage	$V_{R(RMS)}$	42	35	28	V
Forward continuous current	I_{FM}		15		mA
Repetitive peak forward current @ $t < 1.0s$ @ $t = 10\mu s$	I_{FRM}		50		mA
				2.0	A
Power dissipation	P_d		400		mW
Thermal resistance junction to ambient	R_{JA}		300		$^\circ\text{C}/\text{W}$
Storage temperature	T_{STG}		-65 to +125		$^\circ\text{C}$

Electrical ratings @ $T_A=25^\circ\text{C}$

PARAMETER		SYMBOLS	Min.	Typ.	Max.	Unit	Conditions
Reverse breakdown voltage	SD101AW SD101BW SD101CW	$V_{(BR)R}$	60 50 40			V	$I_R=10\mu\text{A}$ $I_R=10\mu\text{A}$ $I_R=10\mu\text{A}$
Forward voltage	SD101AW SD101BW SD101CW SD101AW SD101BW SD101CW	V_F			0.41 0.40 0.39 1.00 0.95 0.90	V	$I_F=1.0\text{mA}$ $I_F=1.0\text{mA}$ $I_F=1.0\text{mA}$ $I_F=15\text{mA}$ $I_F=15\text{mA}$ $I_F=15\text{mA}$
Reverse current	SD101AW SD101BW SD101CW	I_{RM}			0.2	μA	$V_R=50\text{V}$ $V_R=40\text{V}$ $V_R=30\text{V}$
Capacitance between terminals	SD101AW SD101BW SD101CW	C_T			2.0 2.1 2.2	pF	$V_R=0\text{V}, f=1.0\text{MHz}$
Reverse recovery time		t_{rr}			1.0	ns	$I_F=I_R=5\text{mA}$ $I_{rr}=0.1I_R, R_L=100\Omega$

RATINGS AND CHARACTERISTIC CURVES SD101AW-SD101CW

FIG. 1- POWER DERATING CURVE

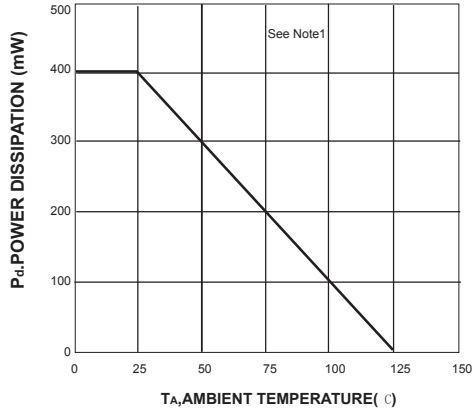


FIG. 2-TYPICAL FORWARD CHARACTERISTIC

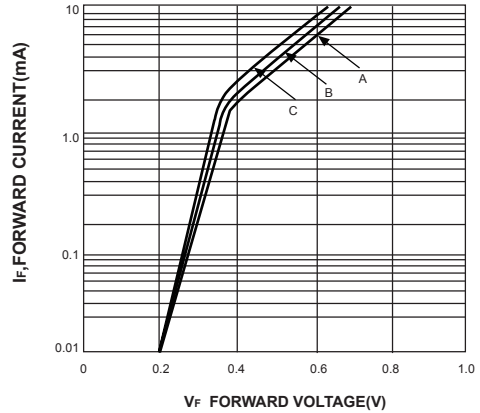


FIG.3- TYPICAL TOTAL CAPACITANCE VS REVERSE VOLTAGE

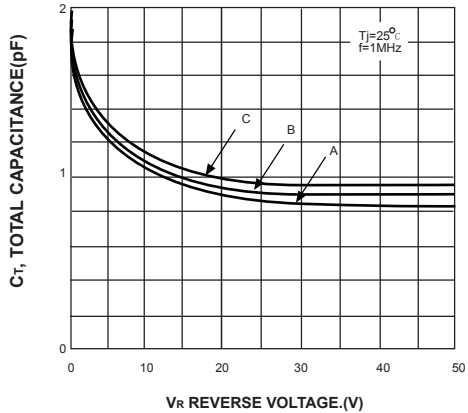


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

