SD103AWS / SD103BWS / SD103CWS

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20~40 Volts Forward Current - 350 mAmpere

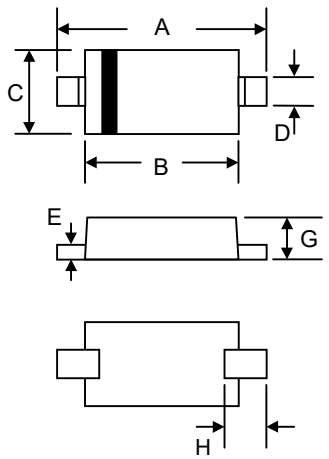
FEATURES

- Low Turn-on Voltage
- Fast Switching
- Ultra-small surface mount package.
- PN Junction Guard Ring for Transient and ESD Protection

MECHANICAL DATA

- Case: SOD-323, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.004 grams (approx.)

RoHS Compliant



SOD-323		
Dim	Min	Max
A	2.30	2.70
B	1.75	1.95
C	1.15	1.35
D	0.25	0.35
E	0.05	0.15
G	0.70	0.95
H	0.30	—
All Dimensions in mm		

Maximum Ratings @T_A=25°C unless otherwise specified

Parameter	Symbol	Part Number			Unit
		SD103CWS	SD103BWS	SD103AWS	
Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	V
Working Peak Reverse Voltage	V_{RWM}	20	30	40	
Maximum DC Blocking Voltage	V_R	20	30	40	
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	
Average Rectified Output Current	I_{FM}	350			mA
Peak Forward Surge Current @8.3ms Single Half Sine-Wave	I_{FSM}	2			A
Power Dissipation	P_D	200			mW
Thermal Resistance Junction to Ambient	$R_{\Theta JA}$	500			℃ / W
Junction and Storage Temperature Range	T_J, T_{STG}	125,-55~150			℃

Electrical Characteristics @T_A=25°C unless otherwise specified

Parameter		Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Reverse Breakdown Voltage	SD103CWS	V_{BR}	20	-	-	V	I_F=100uA
	SD103BWS		30	-	-		
	SD103AWS		40	-	-		
Reverse Leakage Current	SD103CWS	I_{RM}	-	-	5	uA	V_R=10V
	SD103BWS		-	-	5		V_R=20V
	SD103AWS		-	-	5		V_R=30V
Forward Voltage		V_F	-	-	0.37	V	I_F=20mA
			-	-	0.6		I_F=200mA
Capacitance Between Terminals		C_T	-	-	50	pF	V_R=0V, f=1MHz
Reverse Recovery Time		T_{RR}	-	10	-	nS	I_F=I_R=200mA. I_{RR}=0.1xI_R, R_L=100Ω

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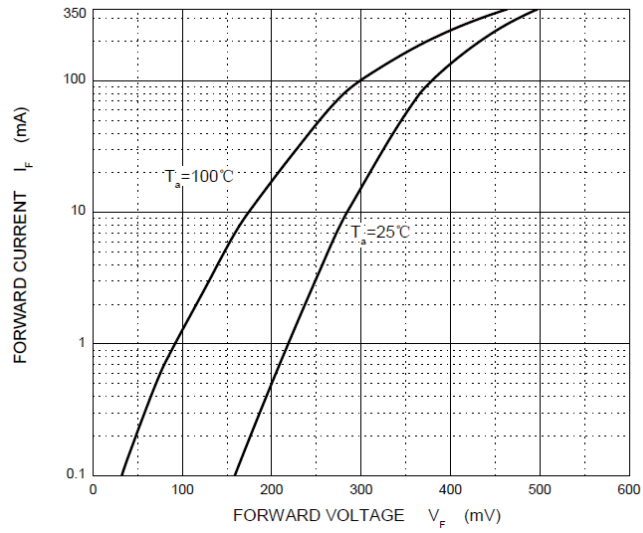
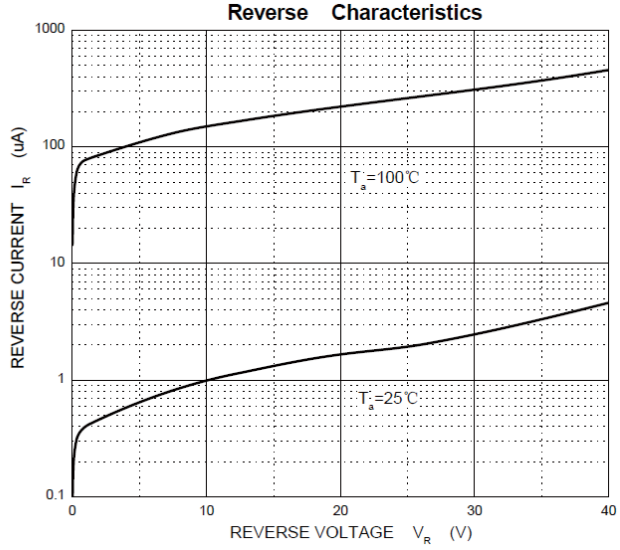
RATINGS AND CHARACTERISTIC CURVES

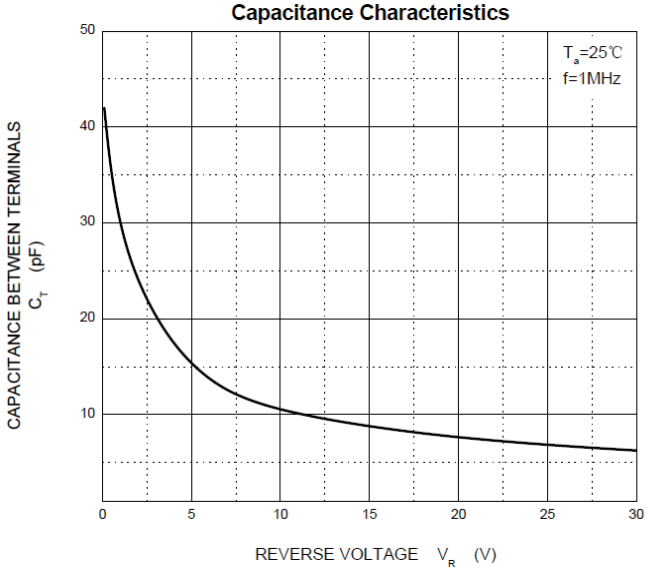
Forward Characteristics



Reverse Characteristics



Capacitance Characteristics



Power Derating Curve