

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

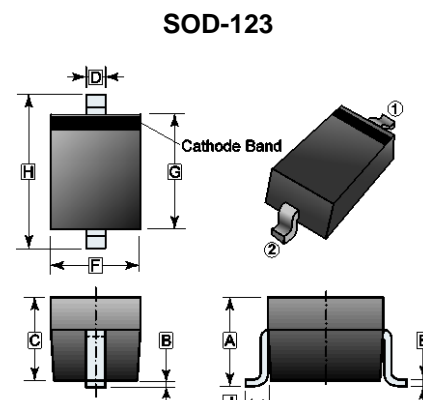
- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time

## MARKING

Part Number	SD101AW	SD101BW	SD101CW
Marking	S1	S2	S3

## PACKAGE INFORMATION

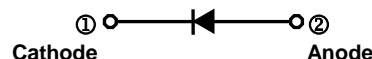
Package	MPQ	Leader Size
SOT-23	3K	7 inch



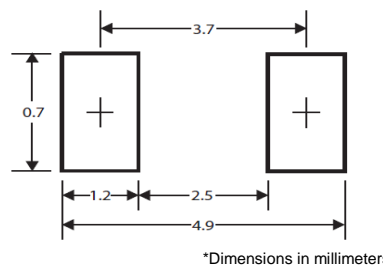
REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.15 REF.		F	1.45	1.80
B	0.10 REF.		G	2.55	2.90
C	1.00	1.30	H	3.10	3.85
D	0.30	0.78	J	0.50 REF.	
E	0.05	0.25			

## ORDER INFORMATION

Part Number	Type
SD101AW~SD101CW	Lead (Pb)-free
SD101AW-C~SD101CW-C	Lead (Pb)-free and Halogen-free



### Mounting Pad Layout



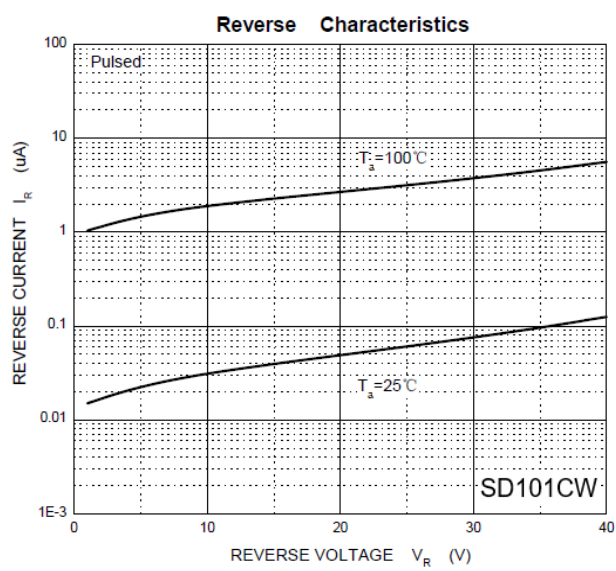
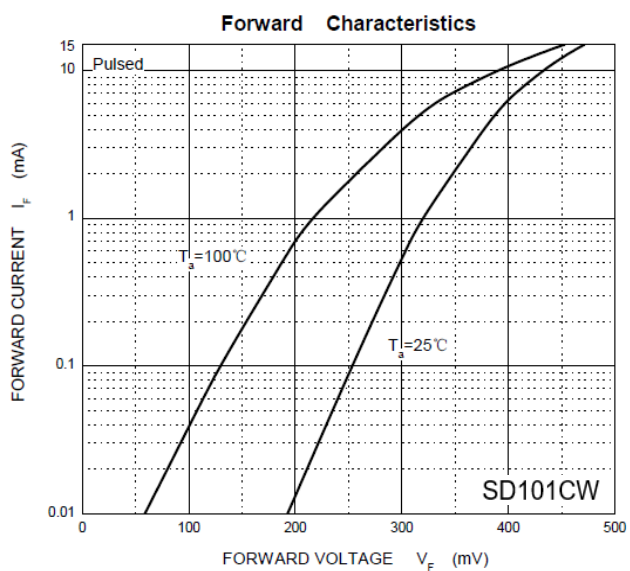
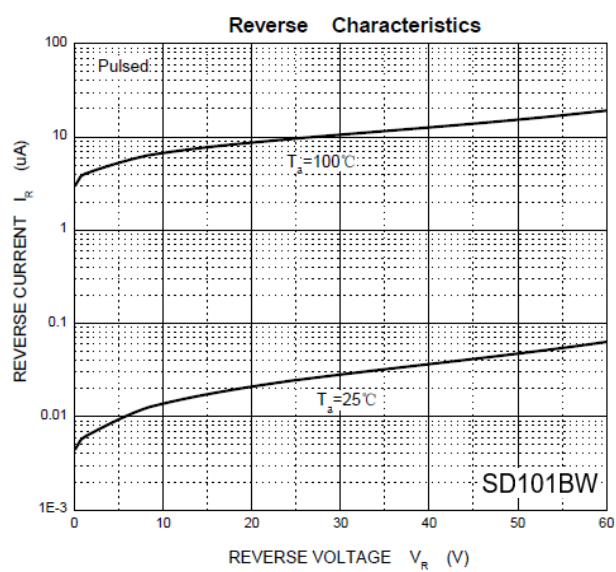
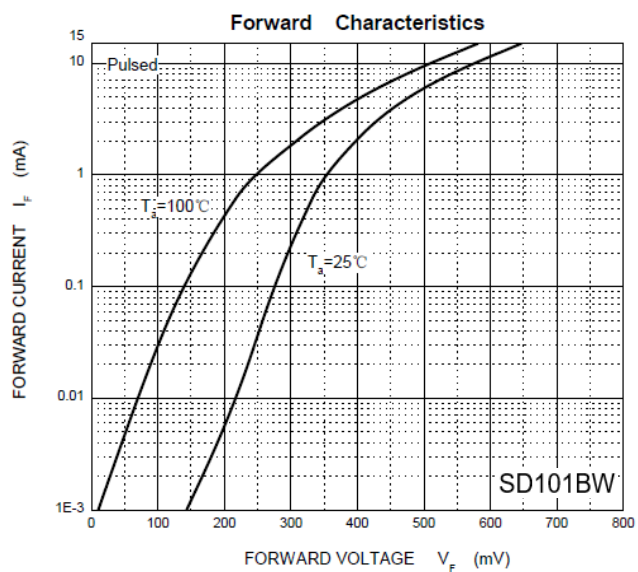
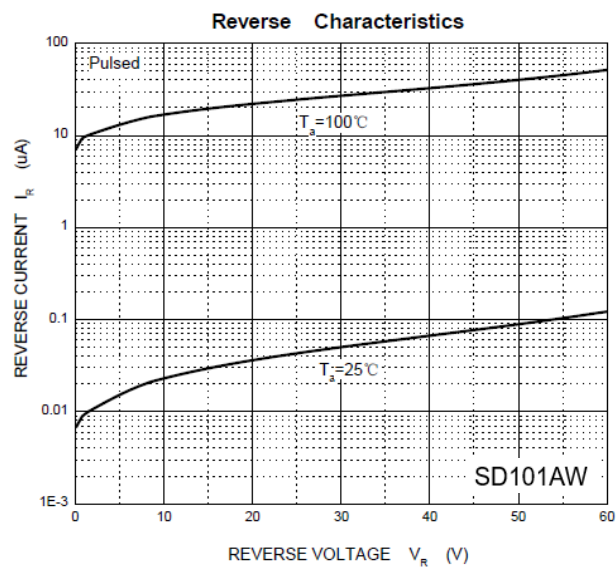
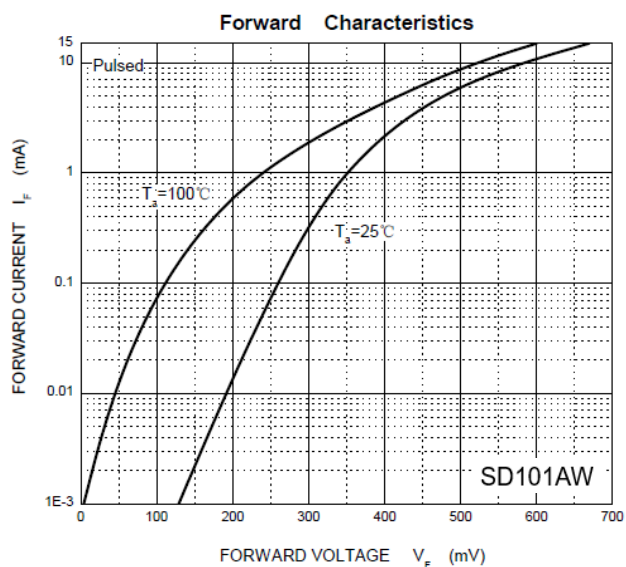
## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Part Number			Unit
		SD101AW	SD101BW	SD101CW	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	60	50	40	V
Working Peak Reverse Voltage	V <sub>RWM</sub>	60	50	40	
DC Blocking Voltage	V <sub>R</sub>	60	50	40	
RMS Reverse Voltage	V <sub>R(RMS)</sub>	42	35	28	
Forward Continuous Current	I <sub>FM</sub>	15			mA
Non-repetitive Peak Forward Surge Current @t=8.3ms	I <sub>FSM</sub>	2			A
Power Dissipation	P <sub>D</sub>	400			mW
Thermal Resistance Junction-Ambient	R <sub>θJA</sub>	250			°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-40~125			°C
Storage Temperature Range	T <sub>STG</sub>	-55~150			

**ELECTRICAL CHARACTERISTICS** ( $T_A=25^{\circ}\text{C}$  unless otherwise specified)

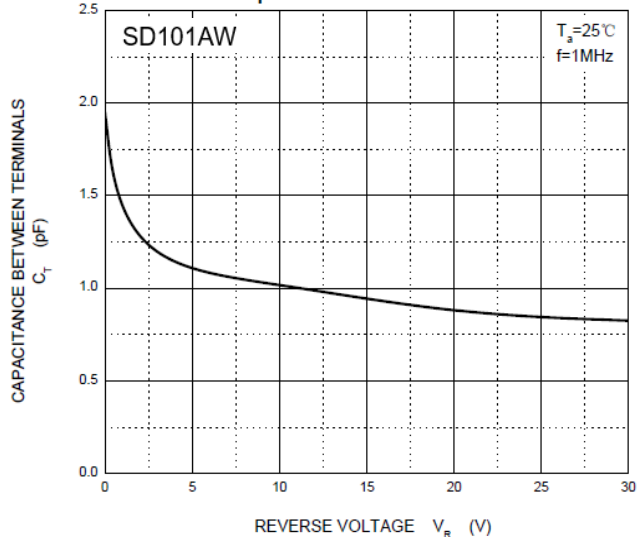
Parameters		Symbol	Min.	TYP.	Max.	Unit	Test Conditions
Forward Voltage	SD101AW	$V_F$	-	-	0.41	V	$I_F=1\text{mA}$
	SD101BW		-	-	0.4		
	SD101CW		-	-	0.39		
Forward Voltage	SD101AW		-	-	1		$I_F=15\text{mA}$
	SD101BW		-	-	0.95		
	SD101CW		-	-	0.9		
Reverse Current	SD101AW	$I_R$	-	-	0.2	$\mu\text{A}$	$V_R=50\text{V}$
	SD101BW		-	-	0.2		$V_R=40\text{V}$
	SD101CW		-	-	0.2		$V_R=30\text{V}$
Capacitance Between Terminals	SD101AW	$C_T$	-	2	-	pF	$V_R=0\text{V}, f=1\text{MHz}$
	SD101BW		-	2.1	-		
	SD101CW		-	2.2	-		
Reverse Recovery Time		$T_{rr}$	-	1	-	nS	$I_F=I_R=5\text{mA}, I_{rr}=0.1 \times I_R, R_L=100\Omega$

**RATINGS AND CHARACTERISTIC CURVES**

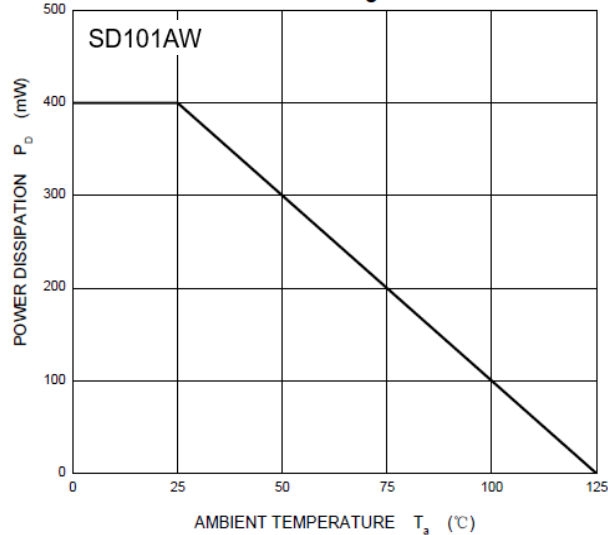


**RATINGS AND CHARACTERISTIC CURVES**

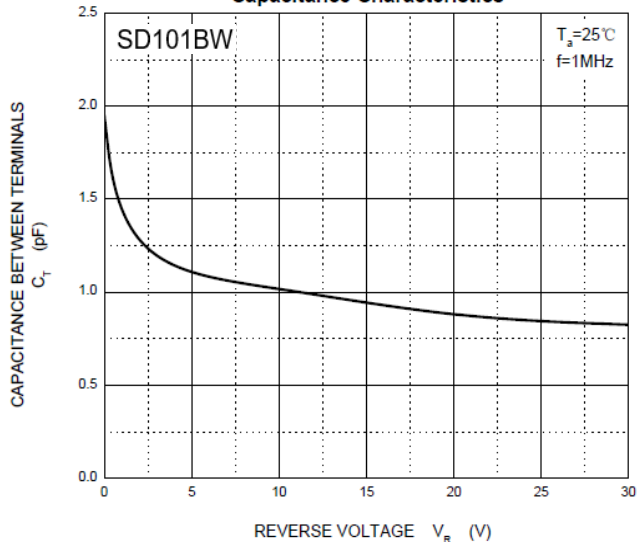
**Capacitance Characteristics**



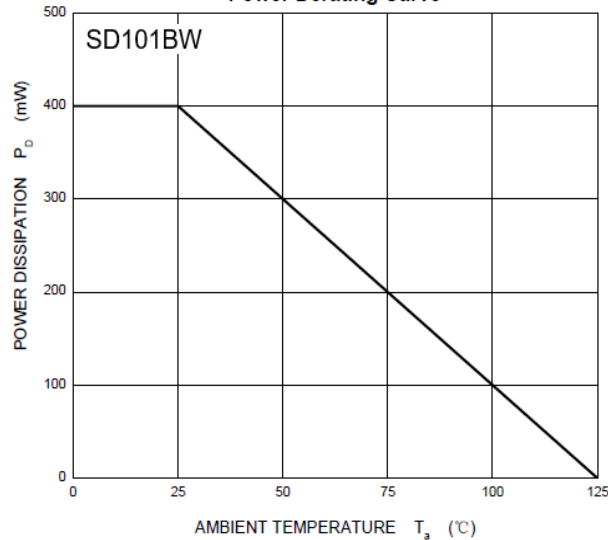
**Power Derating Curve**



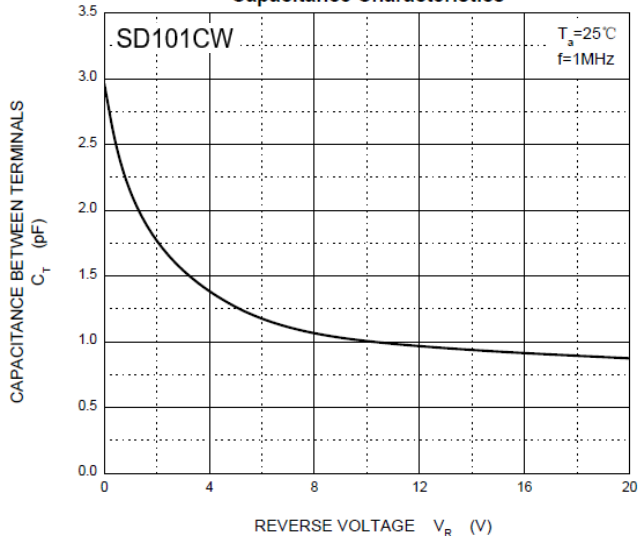
**Capacitance Characteristics**



**Power Derating Curve**



**Capacitance Characteristics**



**Power Derating Curve**

