

# SOD-123 Plastic-Encapsulate Diodes

## B1040W SCHOTTKY BARRIER DIODE

### FEATURES

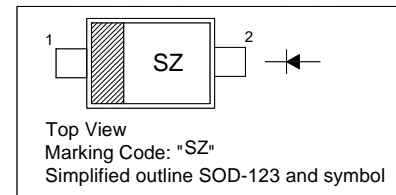
- Low Forward Voltage Drop
- Very Small SMD Package

### APPLICATIONS

- Low Voltage Rectification
- High Efficiency DC/DC Conversion
- Switch Mode Power Supply
- Inverse Polarity Protection
- Low Power Consumption Applications

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### MARKING: SZ

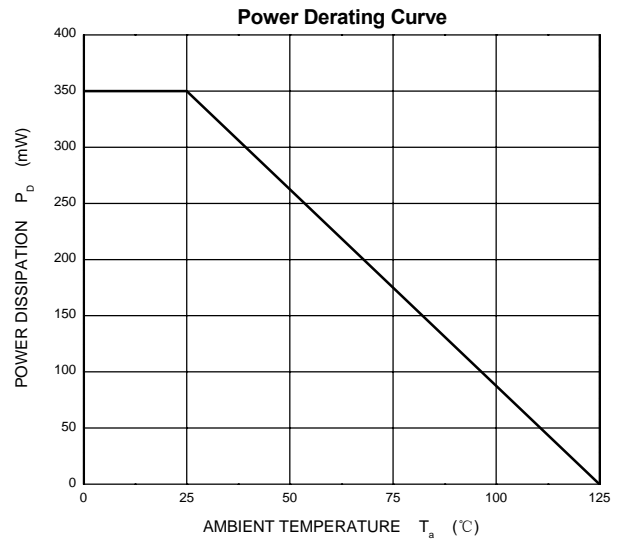
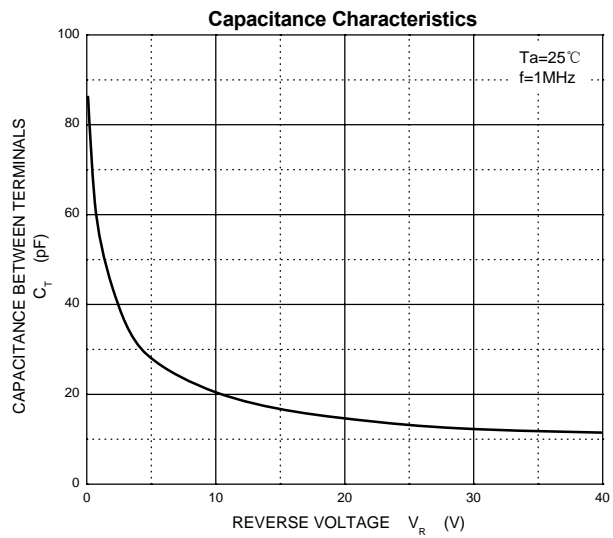
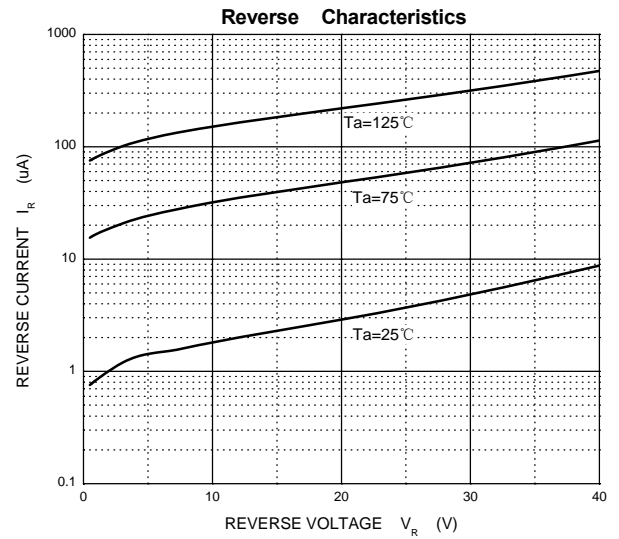
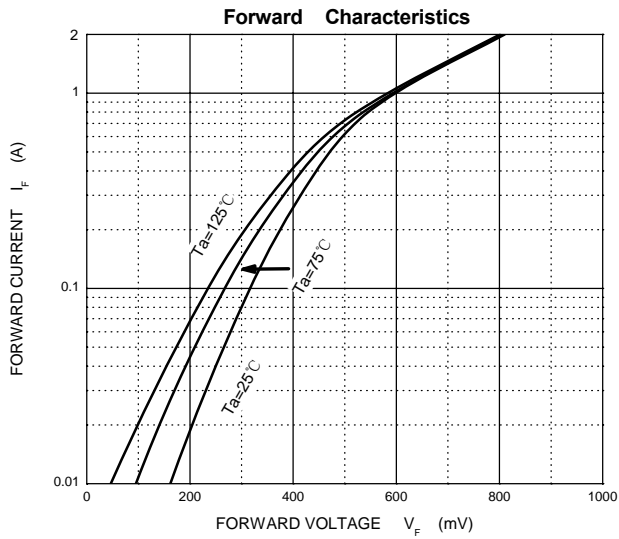
### MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ unless otherwise noted )

Symbol	Parameter	Value	Unit
$V_{RRM}$	Peak Repetitive Reverse Voltage	40	V
$V_{RWM}$	Working Peak Reverse Voltage		
$V_{R(RMS)}$	RMS Reverse Voltage	28	V
$I_o$	Average Rectified Output Current	1	A
$I_{FSM}$	Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	5	A
$P_D$	Power Dissipation	350	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	285	$^\circ\text{C}/\text{W}$
$T_j$	Junction Temperature	125	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55~+150	$^\circ\text{C}$

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1\text{mA}$	40			V
Reverse current	$I_R$	$V_R=20\text{V}$			50	$\mu\text{A}$
Forward voltage	$V_F$	$I_F=0.5\text{A}$			0.51	V
		$I_F=0.7\text{A}$			0.55	
Total capacitance	$C_{tot}$	$V_R=10\text{V}, f=1\text{MHz}$			20	pF

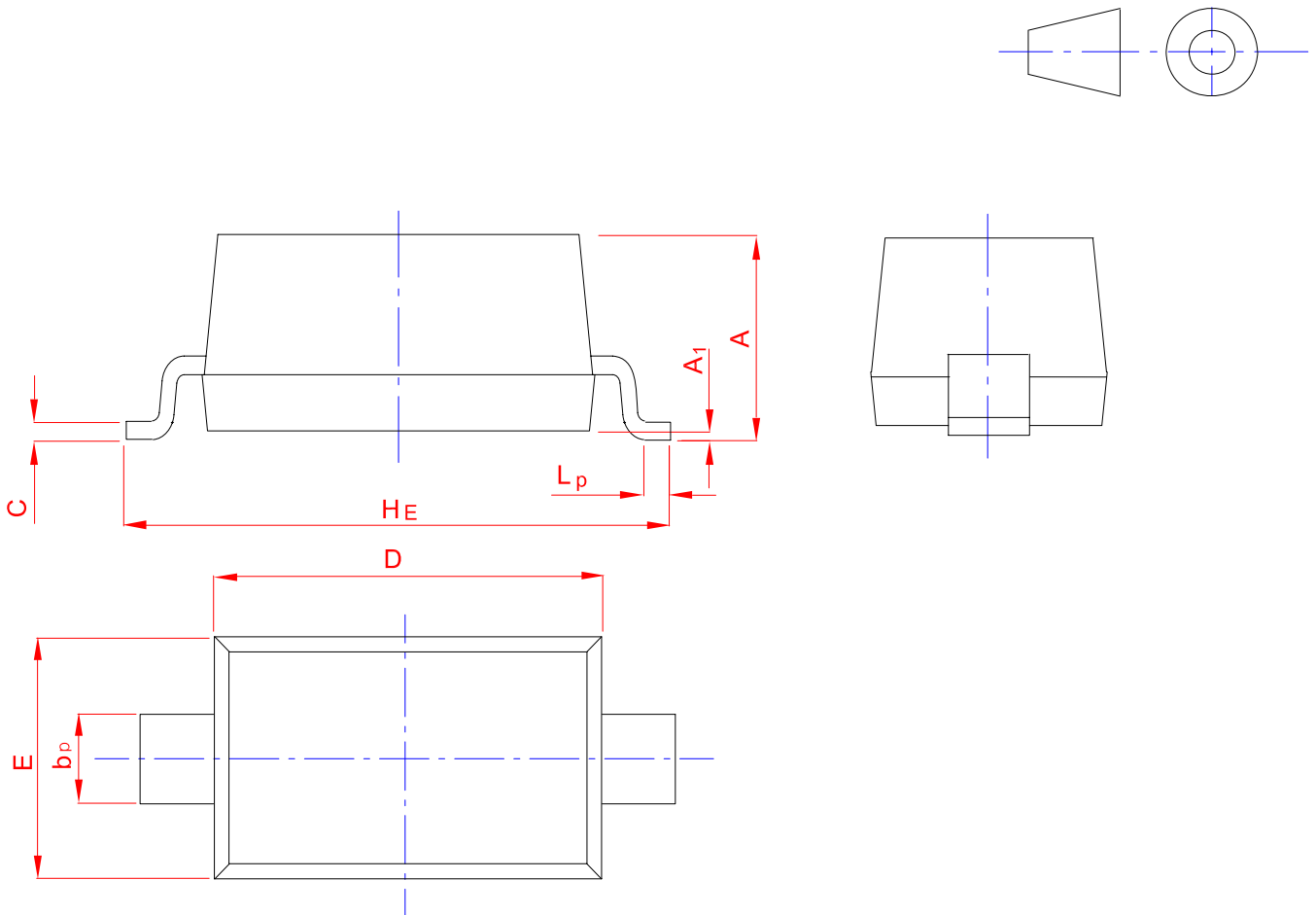
## Typical Characteristics



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



UNIT	A	bp	C	D	E	HE	A1	Lp
mm	1.20	0.60	0.135	2.75	1.65	3.85	0.10	0.50
	0.90	0.50	0.100	2.55	1.55	3.55	0.01	0.20