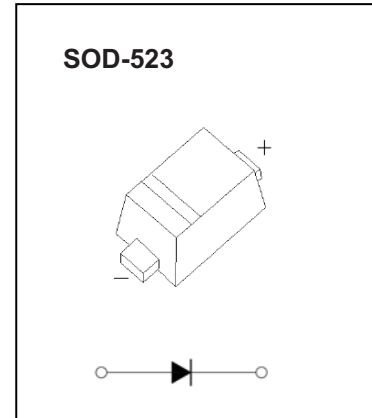
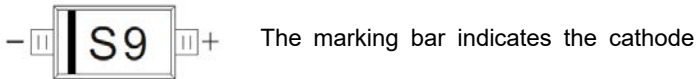


### BAT46X SCHOTTKY BARRIER DIODE

#### FEATURES

- High breakdown voltage
- Low turn-on voltage
- Guard ring construction for transient protection

#### MARKING: S9



#### Maximum Ratings @Ta=25°C

Parameter	Symbol	Limit	Unit
Peak repetitive peak reverse voltage	$V_{RRM}$	100	V
Working peak reverse voltage	$V_{RWM}$		
Forward continuous current	$I_F$	150	mA
Repetitive peak forward current (Note 1) @ $t_p < 1.0s$ , Duty Cycle < 50%	$I_{FRM}$	350	mA
Non-repetitive Peak Forward surge current @ $t = 8.3ms$	$I_{FSM}$	750	mA
Power dissipation	$P_D$	150	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	667	°C/W
Operating Junction Temperature Range	$T_J$	-40 ~ +125	°C
Storage Temperature Range	$T_{STG}$	-55 ~ +150	°C

#### ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

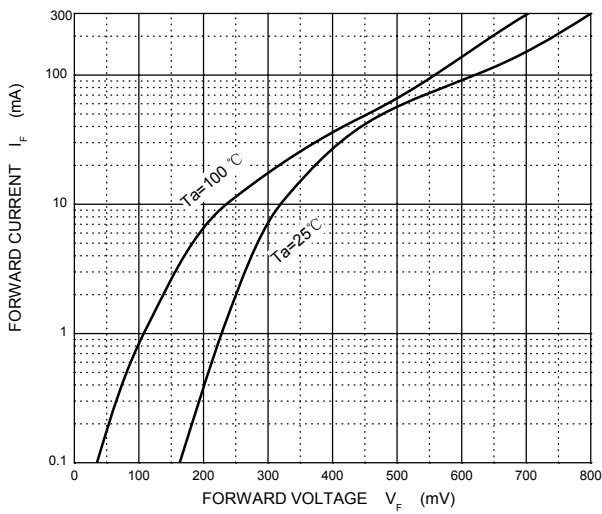
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage(Note 2)	$V_R$	$I_R = 100\mu A$	100			V
Reverse voltage leakage current	$I_R$	$V_{R1} = 1.5V$			0.3	$\mu A$
		$V_{R2} = 10V$			0.5	
		$V_{R3} = 50V$			1	
		$V_{R4} = 75V$			2	
Forward voltage(Note 2)	$V_F$	$I_{F1} = 0.1mA$			0.25	V
		$I_{F2} = 10mA$			0.45	
		$I_{F3} = 250mA$			1	
Diode capacitance	$C_T$	$V_R = 0, f = 1MHz$		20		pF
		$V_R = 1V, f = 1MHz$		12		

Notes: 1. Part mounted on FR-4 board with recommended pad layout.  
2. Short duration pulse test used to minimize self-heating effect.

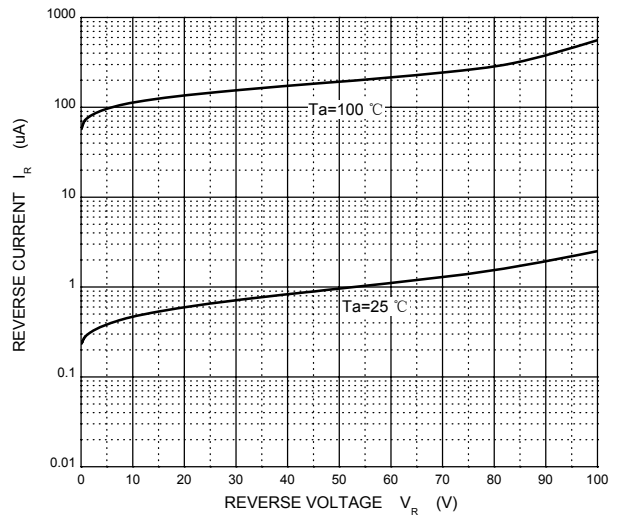


## Typical Characteristics

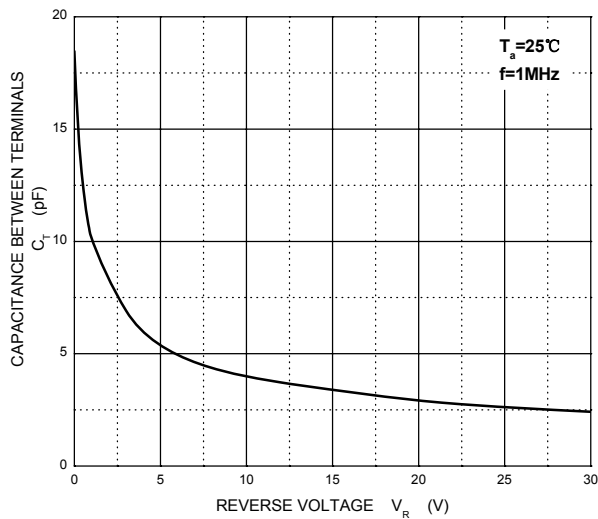
### Forward Characteristics



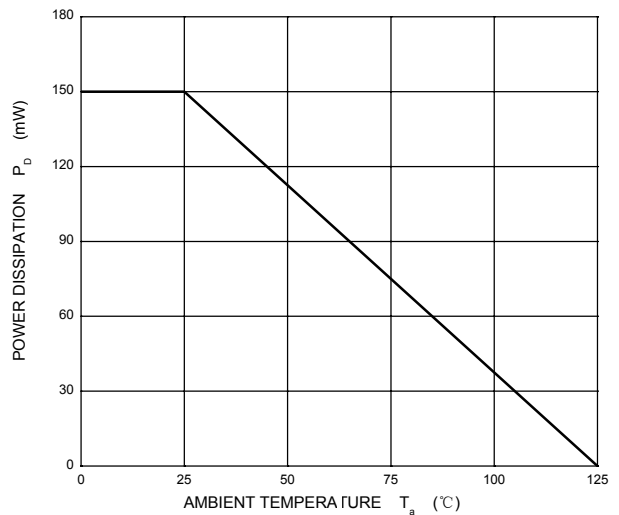
### Reverse Characteristics



### Capacitance Characteristics



### Power Derating Curve





**CHINA BASE**  
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# SOD-523

# BAT46X

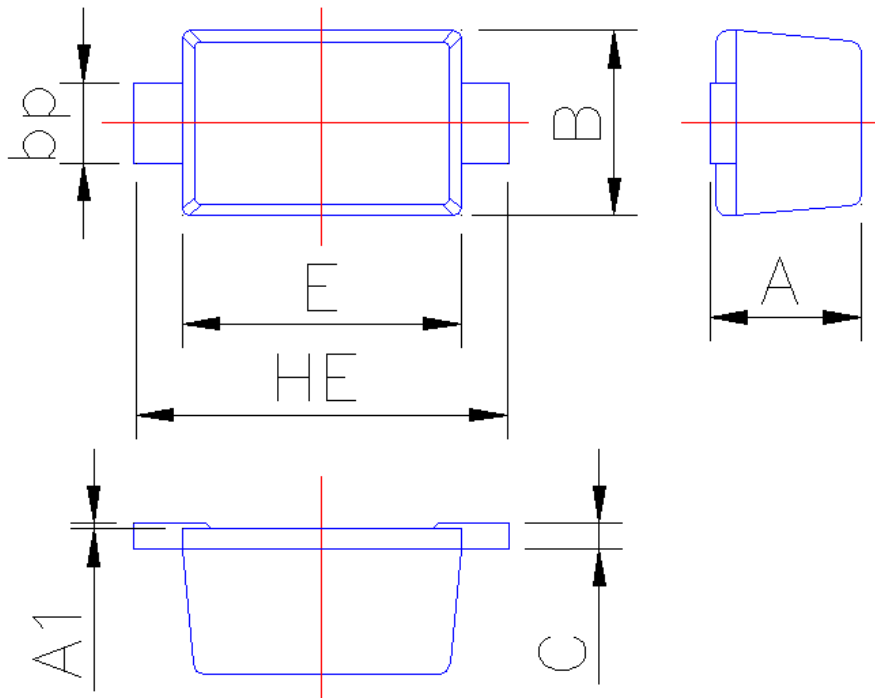


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## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-523



Symbol	Dimension in Millimeters	
	Min	Max
A	0.60	0.70
A1	0	0.05
B	0.75	0.85
bp	0.25	0.40
C	0.09	0.15
E	1.15	1.25
HE	1.50	1.70