



BAT54M5 Schottky Barrier Diode

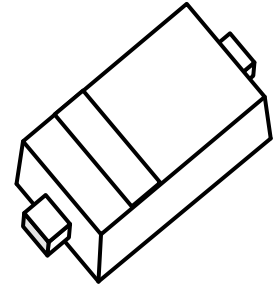
Feature

- Extremely Fast Switch Speed
- Low Forward Voltage

MARKING:



SOD-523



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

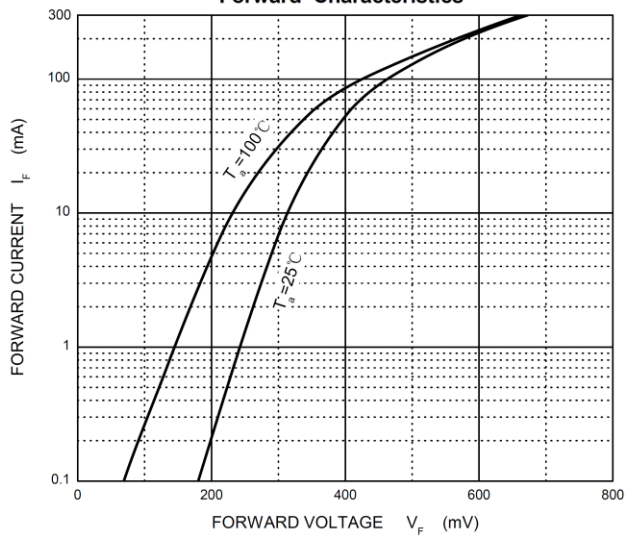
Parameter	Symbol	Value	Unit
DC reverse voltage	V_R	30	V
Mean rectifying current	I_O	0.1	A
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	0.6	A
Power Dissipation	P_D	0.15	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	635	$^{\circ}\text{C}/\text{W}$
Junction Temperature	T_J	125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^{\circ}\text{C}$

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

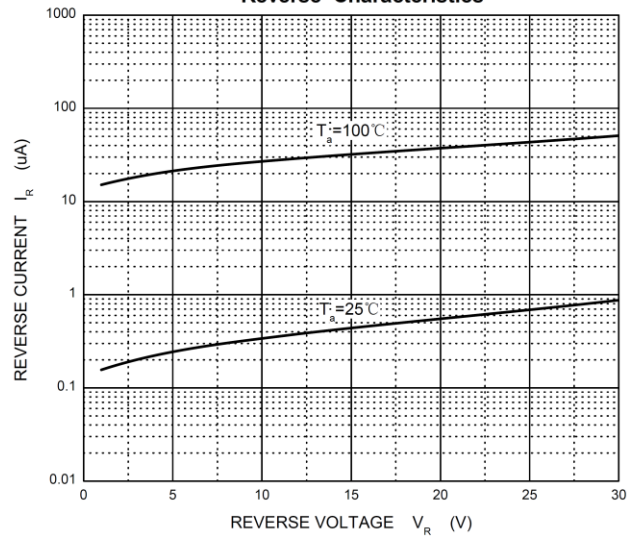
Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=10\mu\text{A}$	30			V
Forward voltage	V_{F1}	$I_F=0.1\text{mA}$			0.24	V
	V_{F2}	$I_F=1\text{mA}$			0.32	V
	V_{F3}	$I_F=10\text{mA}$			0.40	V
	V_{F4}	$I_F=30\text{mA}$			0.50	V
	V_{F5}	$I_F=100\text{mA}$			0.8	V
Reverse current	I_R	$V_R=25\text{V}$			2	μA
Reverse recovery time	t_{rr}	$I_F=10\text{mA}$, $I_R=10\text{mA}$ to 1mA , $R_L=100\Omega$			5	ns
Capacitance between terminals	C_T	$V_R=1\text{V}$, $f=1\text{MHz}$			10	pF

Typical Characteristics

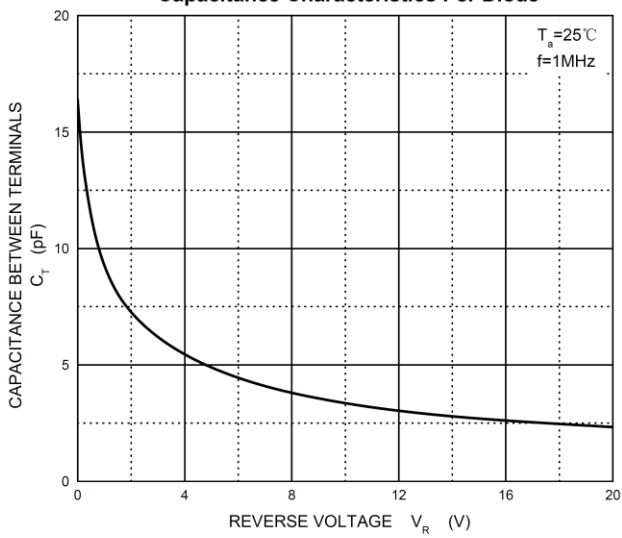
Forward Characteristics



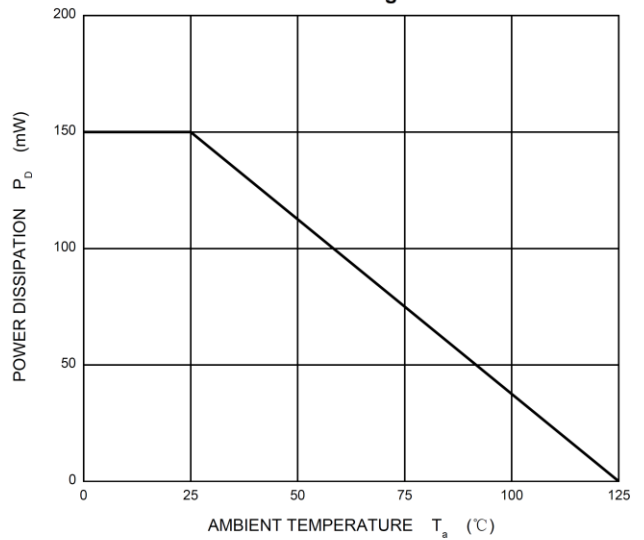
Reverse Characteristics

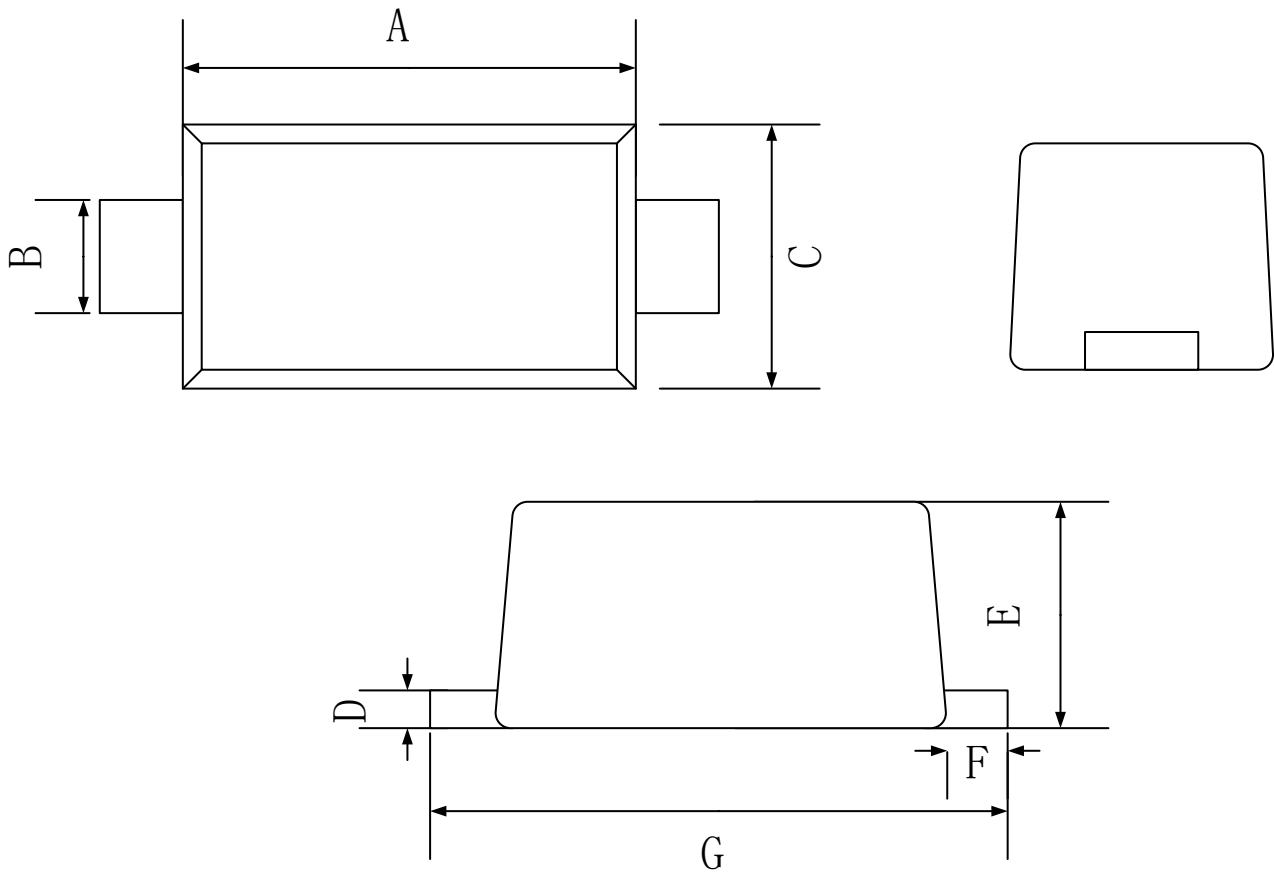


Capacitance Characteristics Per Diode



Power Derating Curve



SOD-523 Package Outline Dimensions


Symbol	Dimensions In Millimeters		
	Min.	Typ.	Max.
A	1.10	1.20	1.30
B	0.25	0.30	0.35
C	0.75	0.80	0.85
D	0.08	0.10	0.15
E	0.45	0.65	0.70
F	0.20 REF		
G	1.50	1.60	1.70