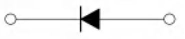
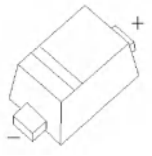
BAT54X Schottky Barrier Diode





SOD-523

FEATURES

- Extremely Fast Switching Speed
- Low Forward Voltage

MARKING: JV

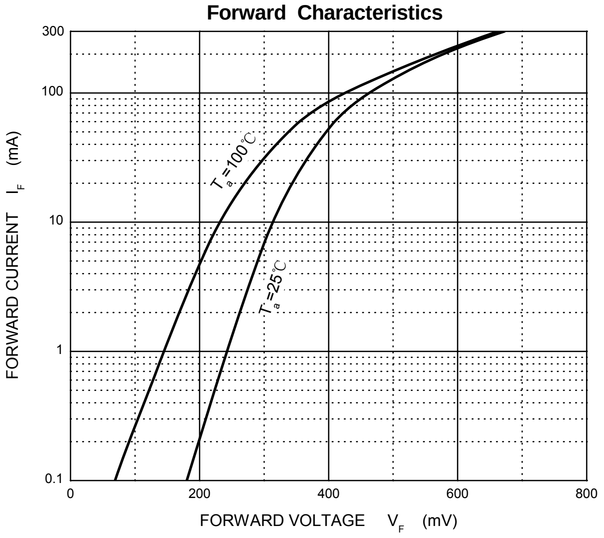
Maximum Ratings @Ta=25℃

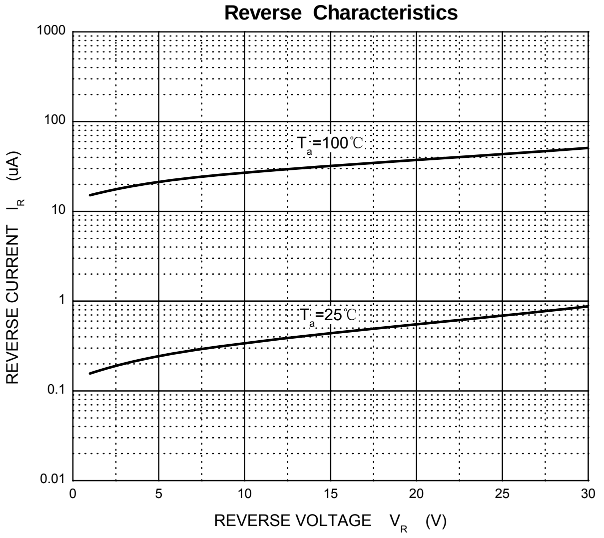
Parameter	Symbol	Limit	Unit
Non-repetitive peak reverse voltage	V_{RM}	30	V
DC blocking voltage	V_R	21	V
Average rectified output current	I_O	100	mA
Forward continuous current	I_F	200	mA
Repetitive peak forward current	I_{FRM}	300	mA
Non-repetitive Peak Forward surge current @t=8.3ms	I_{FSM}	600	mA
Power dissipation	Pd	150	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	667	℃/W
Junction temperature	T_J	125	℃
Storage temperature range	T_{STG}	-55~+150	℃

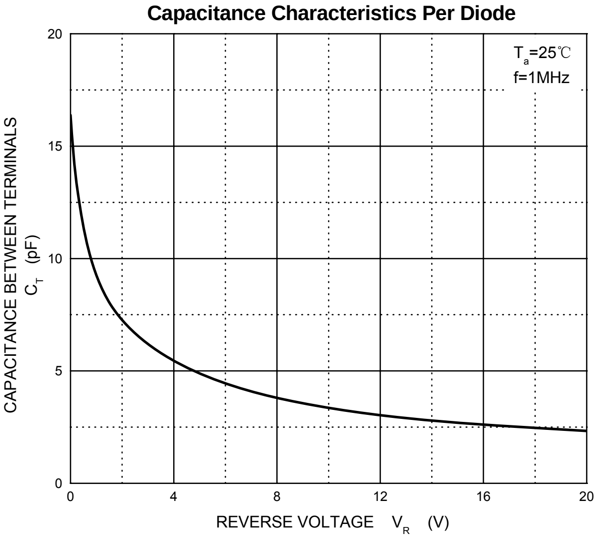
Electrical Characteristics @Ta=25℃

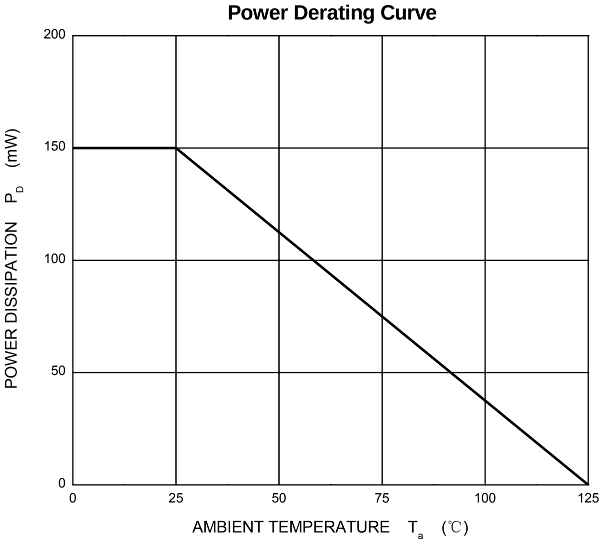
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	I_R=100μA	30			V
Forward voltage	V_{F1}	I_F=0.1mA			240	mV
	V_{F2}	I_F=1.0mA			320	mV
	V_{F3}	I_F=10mA			400	mV
	V_{F4}	I_F=30mA			500	mV
	V_{F5}	I_F=100mA			1000	mV
Reverse current	I_R	V_R=25V			2.0	uA
Reverse recovery time	t_{rr}	I_F=10mA, I_R=10mA to 1mA , R_L=100Ω			5.0	ns
Capacitance between terminals	C_T	V_R=1V,f=1MHz			10	pF

Typical Characteristics


Forward Characteristics

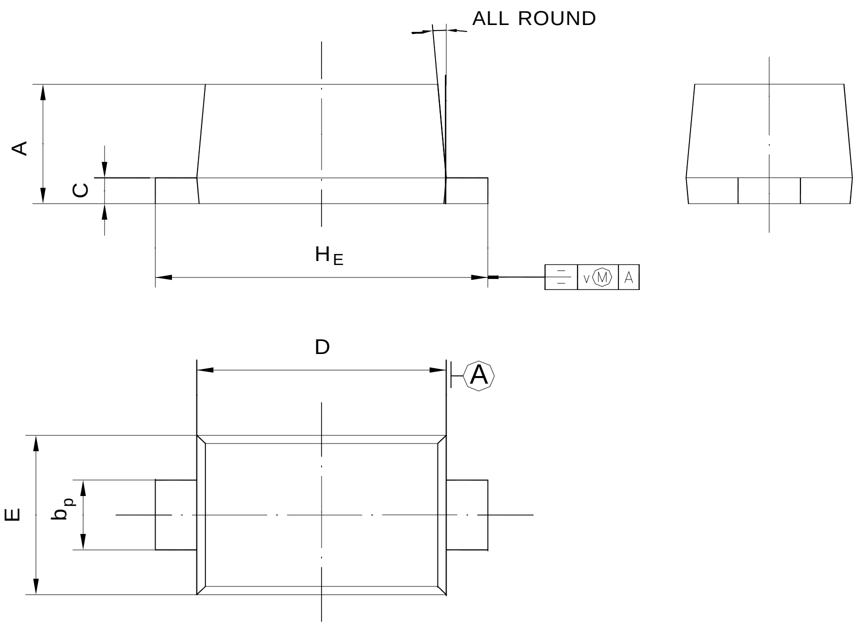

Reverse Characteristics


Capacitance Characteristics Per Diode


Power Derating Curve

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-523**



UNIT	A	b_p	C	D	E	H_E	V	∠
mm	0.68 0.58	0.4 0.3	0.135 0.100	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°