GOODWORK

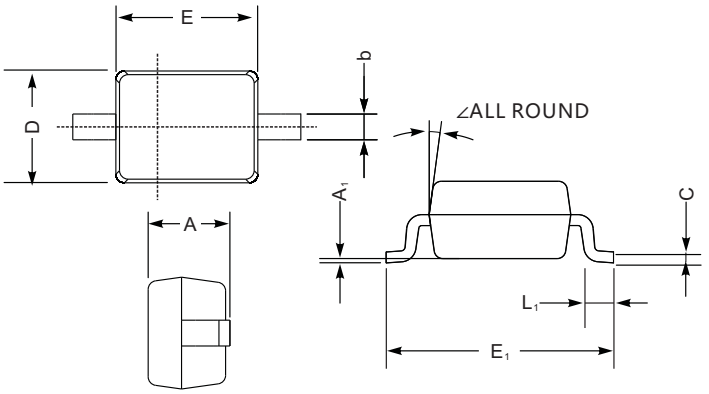
BAT54WS

Schottky Barrier Diode

FEATURES

- Extremely Fast Switching Speed
- Low Forward Voltage

SOD-323



SOD-323 mechanical data

UNIT		A	C	D	E	E_1	b	L_1	A_1	∠
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	63	100	9.8	7.9	—	

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	P_D	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500	℃/W
Operating Junction Temperature Range	T_J	-40 ~ +125	℃
Storage Temperature Range	T_{STG}	-55 ~ +150	℃

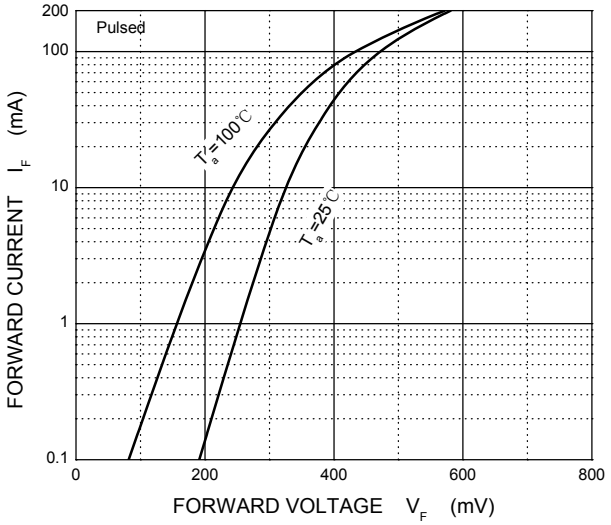
BAT54WS

Electrical Characteristics @Ta=25℃

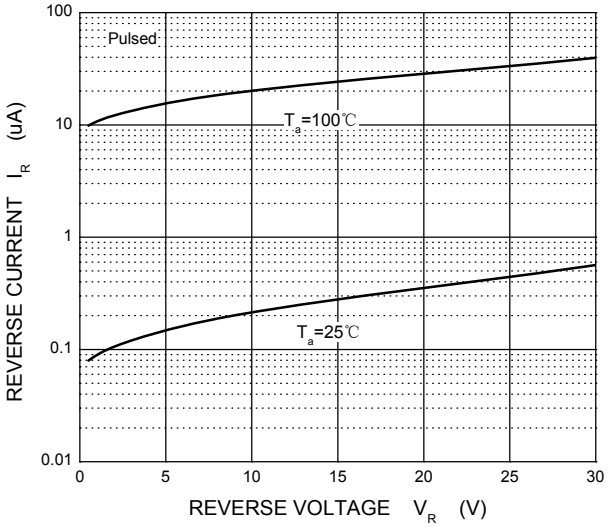
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	I_R=100μA	30			V
Forward voltage	V_{F1}	I_F=0.1mA			240	mV
	V_{F2}	I_F=1.0mA			320	mV
	V_{F3}	I_F=10mA			400	mV
	V_{F4}	I_F=30mA			500	mV
	V_{F5}	I_F=100mA			1000	mV
Reverse current	I_R	V_R=25V			2.0	uA
Reverse recovery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

RATING AND CHARACTERISTIC CURVES (BAT54WS)

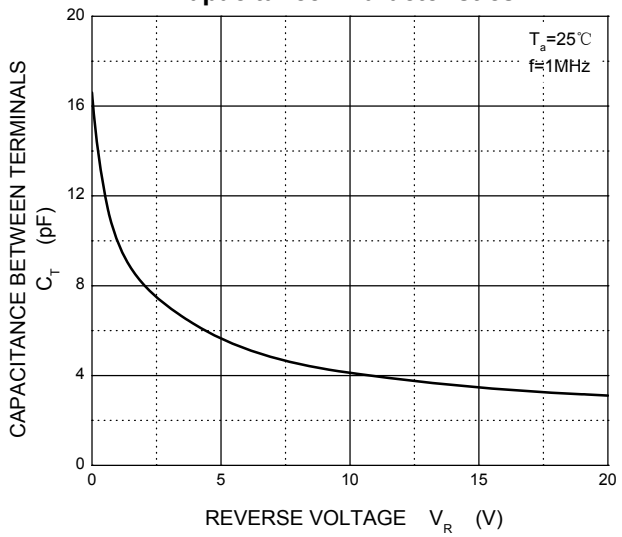
Forward Characteristics



Reverse Characteristics



Capacitance Characteristics



Power Derating Curve