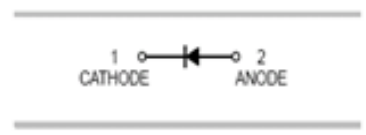




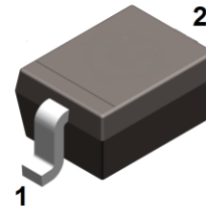
Features

- Very small conduction losses
- Negligible switching losses
- Low forward voltage drop
- Surface mount device



Typical Applications

- Schottky barrier diodes



Mechanical Data

- Case: SOD-323
- Terminals: solderable per MIL-STD-202, Method 208

SOD-323

Ordering Information

Part Number	Package	Shipping	Marking Code
BAT54J	SOD-323	3000 pcs / Tape & Reel	86

Maximum Ratings (@ $T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Limits	Unit
DC Reverse Voltage	V_R	30	V
Continuous forward current	I_F	200	mA
Peak forward surge current @ $t<1\text{s}$	I_{FSM}	600	mA
Total power dissipation *	P_D	200	mW

* part mounted on FR-4 board with recommended pad layout

Thermal Characteristics

Parameter	Symbol	Limits	Unit
Thermal resistance junction to ambient air	$R_{\theta JA}$	500	$^{\circ}\text{C}/\text{W}$
Junction temperature	T_j	125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-65 to +125	$^{\circ}\text{C}$



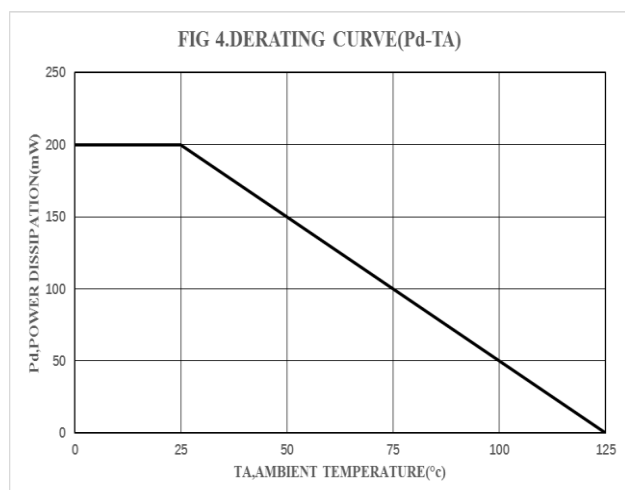
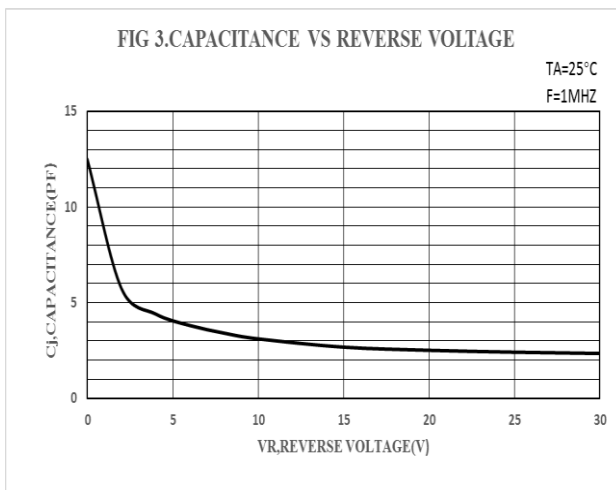
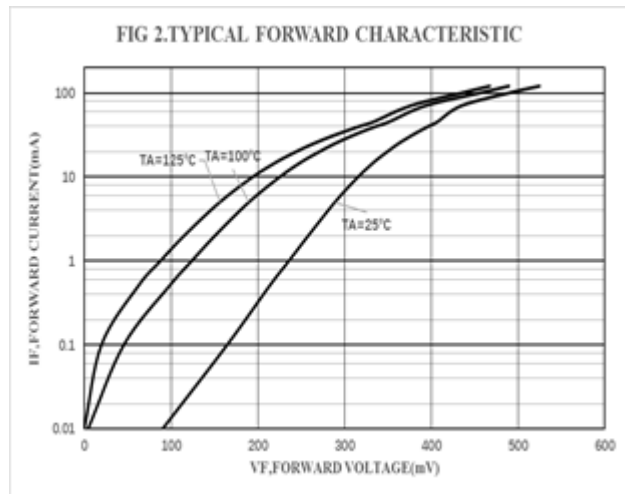
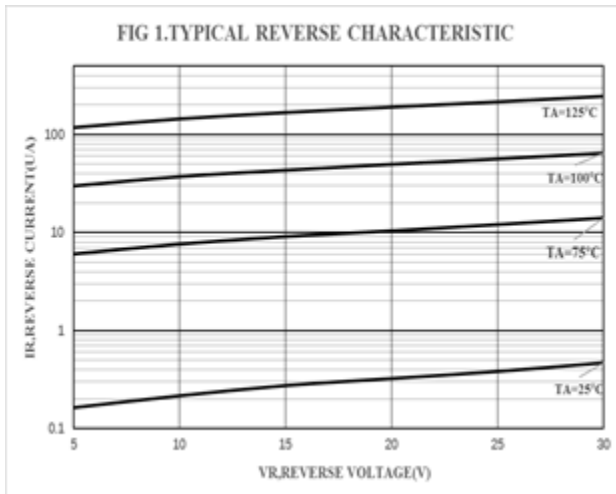
Electrical Characteristics (@ $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=100\mu\text{A}$	30			V
Forward voltage *1	V_{F1}	$I_F=0.1\text{mA}$			240	mV
	V_{F2}	$I_F=1.0\text{mA}$			320	mV
	V_{F3}	$I_F=10\text{mA}$			400	mV
	V_{F4}	$I_F=30\text{mA}$			500	mV
	V_{F5}	$I_F=100\text{mA}$			900	mV
Reverse leakage current *2	I_R	$V_R=25\text{V}$			2	μA
Reverse Recovery Time	t_{rr}	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1I_R, R_L=100\Omega$			5	ns
Capacitance Between Terminals	C_T	$V_R=1\text{V}, f=1\text{MHz}$			10	pF

*1: pulse test, $t_p \leq 300\mu\text{s}$

*2: pulse test, $t_p \leq 5\text{ms}$

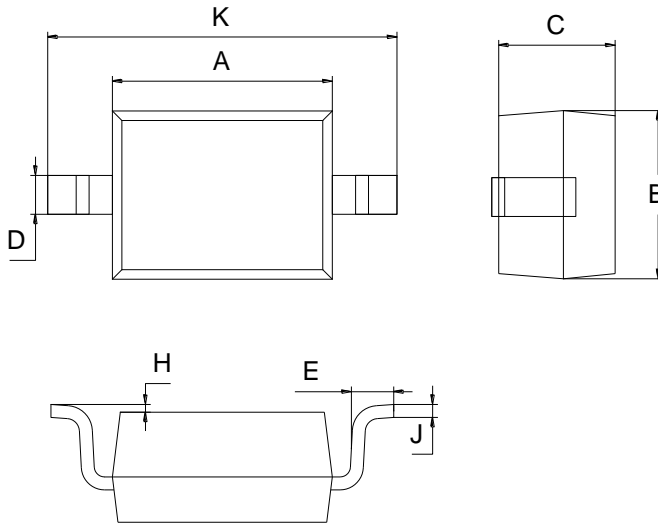
Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)





Package Outline Dimensions(unit:mm)

SOD-323



SOD-323		
Dim	Min	Max
A	1.60	1.80
B	1.20	1.40
C	0.80	0.90
D	0.25	0.35
E	0.22	0.42
H	0.02	0.10
J	0.05	0.15
K	2.55	2.75

Mounting Pad Layout(unit:mm)

SOD-323

