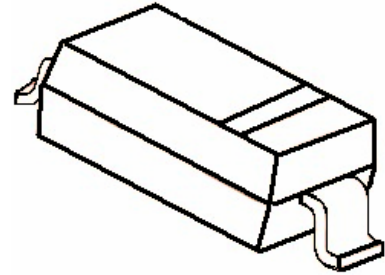


»Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction



SOD-323

»General Description

- Case: molded plastic
- Polarity: Color band denotes cathode
- Package: SOD-323 Plastic Package

» Maximum Ratings @ $T_A=25^{\circ}\text{C}$ unless otherwise noted

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}	100	V
DC Blocking Voltage	V_R	100	V
Average Rectified Forward Current	I_o	75	mA
Forward Continuous Current	I_F	150	mA
Repetitive Peak Forward Current @ $t_p < 1.0\text{s}$, Duty Cycle < 50%	I_{FRM}	350	mA
Non-repetitive Peak Forward Surge Current@ $t_p = 8.3\text{ms}$	I_{FSM}	750	mA
Power Dissipation	P_d	200	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	500	$^{\circ}\text{C}/\text{W}$
Operating Temperature Range	T_j	-40 to + 125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to + 150	$^{\circ}\text{C}$

»Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise noted

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 100\mu\text{A}$	100			V
Forward Voltage Drop	V_F	$I_F = 0.1\text{mA}$ $I_F = 10\text{mA}$ $I_F = 250\text{mA}$			0.25 0.45 1.00	V
Peak Reverse Current	I_R	$V_R = 1.5\text{V}$ $V_R = 1.5\text{V}, T_j = 60^{\circ}\text{C}$ $V_R = 10\text{V}$ $V_R = 10\text{V}, T_j = 60^{\circ}\text{C}$ $V_R = 50\text{V}$ $V_R = 50\text{V}, T_j = 60^{\circ}\text{C}$ $V_R = 75\text{V}$ $V_R = 50\text{V}, T_j = 60^{\circ}\text{C}$			0.5 5.0 0.8 7.5 2.0 15 5.0 20	μA
Total Capacitance	C_T	$V_R = 0\text{V}, f = 1\text{MHz}$ $V_R = 1\text{V}, f = 1\text{MHz}$		10 6.0		pF

»Typical Performance Characteristics (T_J = 25 °C, unless otherwise noted)

Fig.1 Power Derating Curve

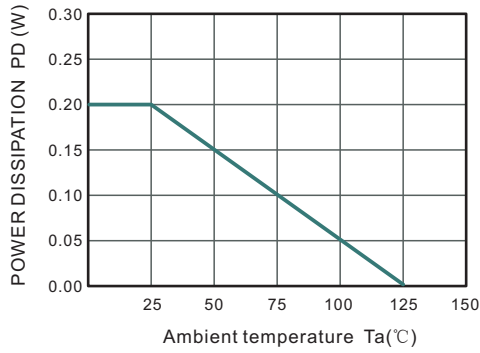


Fig.2 Typical Reverse Characteristics

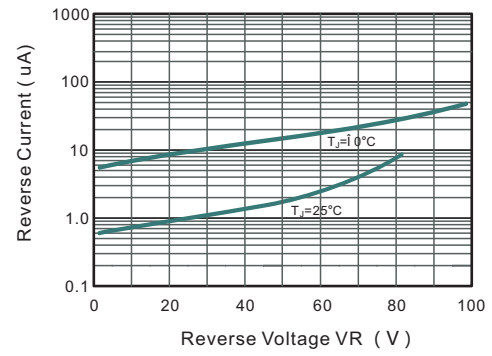


Fig.2 TYPICAL FORWARD VOLTAGE

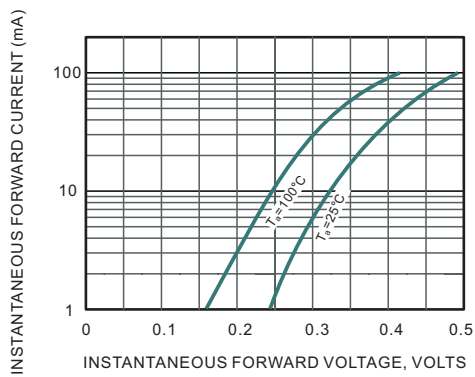
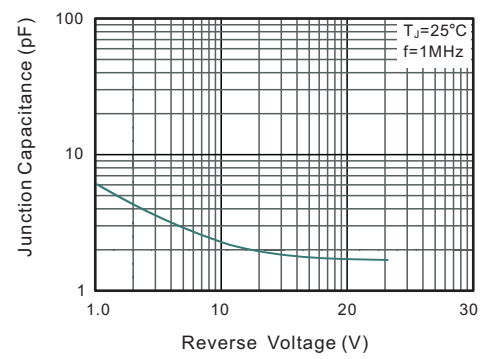
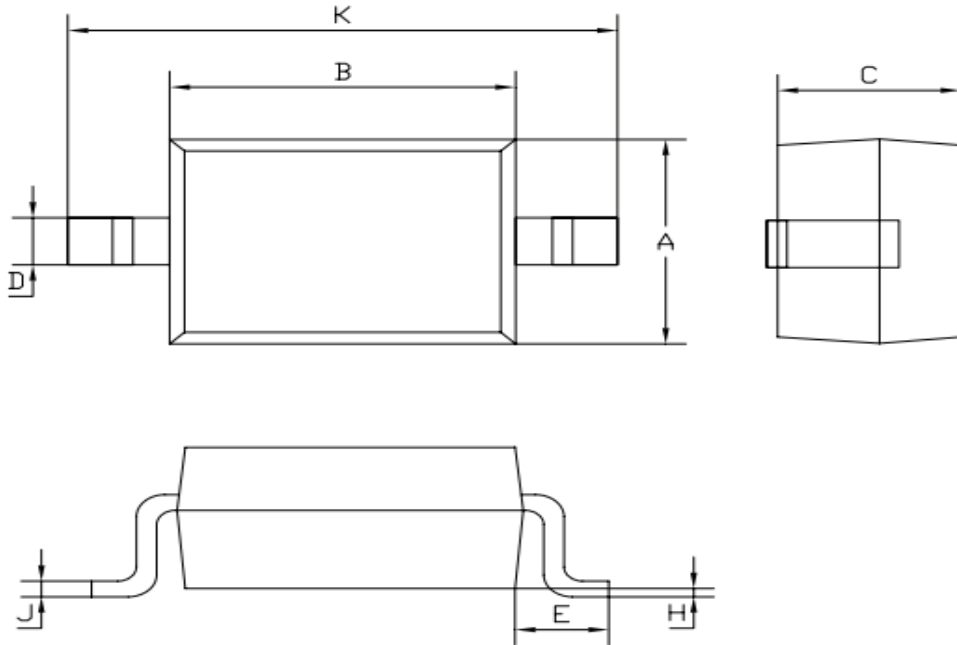


Fig.3 Typical Junction Capacitance



»Package Information

SOD-323



SOD-323		
Dim	Min	Max
A	1.275	1.325
B	1.675	1.725
C	0.9 Typical	
D	0.25	0.35
E	0.27	0.37
H	0.02	0.1
J	0.1 Typical	
K	2.6	2.7

»Ordering information

Order code	Package	Marking	Base qty	Delivery mode
BAT46WS	SOD-323	S9	3K	Tape and reel