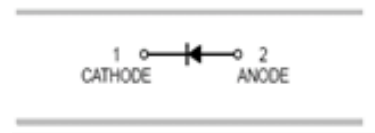




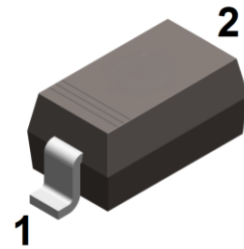
Features

- Low capacitance.
- High switching speed.
- Low leakage current.
- Small and flat lead SMD plastic package.
- Flat leads: excellent coplanarity and improved Thermal behavior.



Typical Applications

- Ultra high-speed switching.
- Voltage clamping.



Mechanical Data

- Case: SOD-123
- Terminals: solderable per MIL-STD-202, Method 208.

SOD-123

Ordering Information

Part Number	Package	Shipping	Marking Code
BAS40H	SOD-123	3000 pcs / Tape & Reel	AJ

Maximum Ratings (@T_A=25°C unless otherwise specified)

Parameter	Symbol	Limits	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	40	V
Working Peak Reverse Voltage	V _{RWM}		
DC Reverse Voltage	V _R		
Forward Continuous Current *	I _F	200	mA
Peak Forward Surge Current@8.3ms	I _{FSM}	600	mA
Power Dissipation *	P _D	375	mW

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



Thermal Characteristics

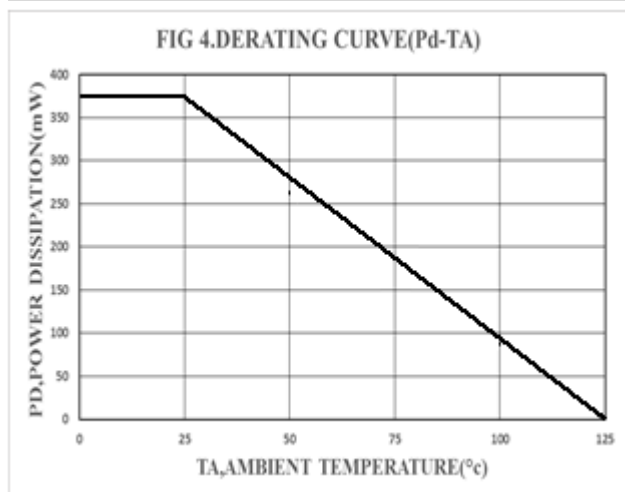
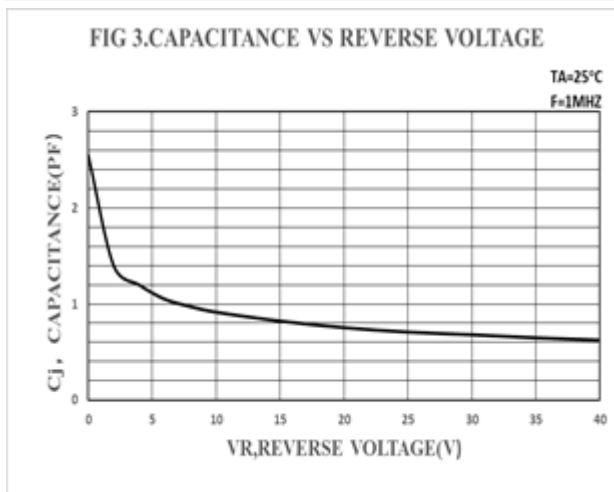
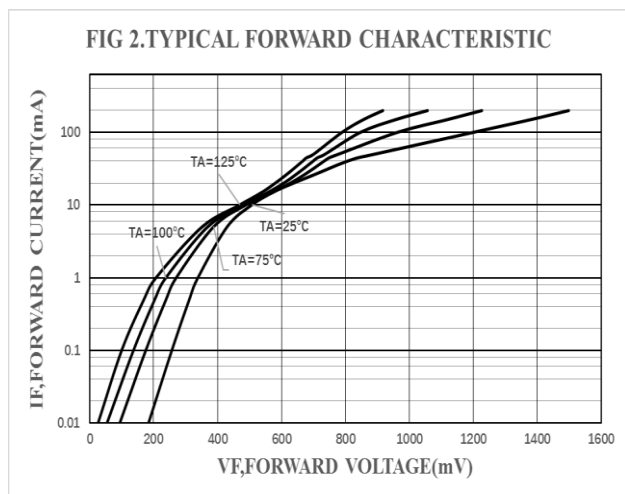
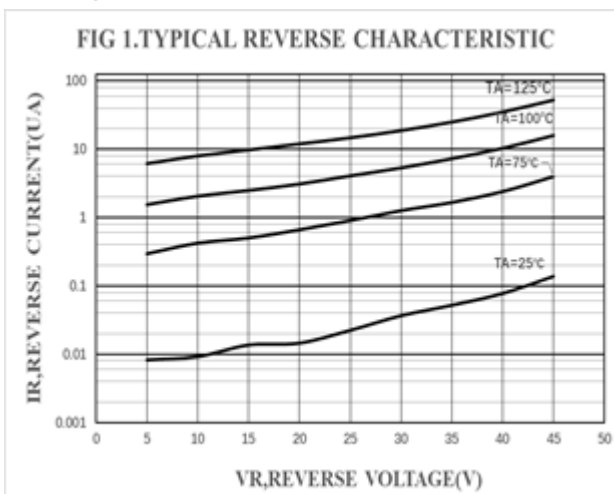
Parameter	Symbol	Limits	Unit
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	267	$^{\circ}C/W$
Operating Junction Temperature Range	T_j	-55 to +125	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}C$

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=1mA$			0.38	V
		$I_F=40mA$			1	V
Reverse Current	I_R	$V_R=30V$			1	μA
		$V_R=40V$			10	μA
Diode Capacitance	C_T	$V_R=0V, f=1MHz$		2.5	5	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10mA$ $I_{rr}=1.0mA, R_L=100\Omega$			5	ns

*1: pulse test, $t_p \leq 300\mu s$
*2: pulse test, $t_p \leq 5ms$

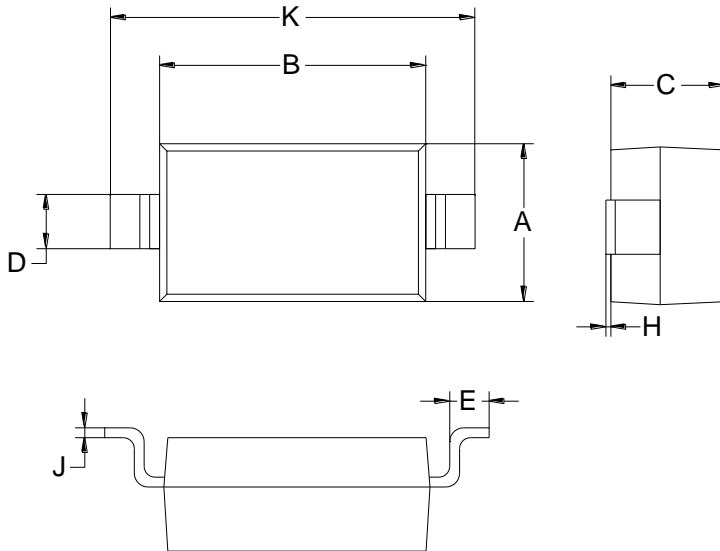
Ratings and Characteristic Curves ($T_A=25^{\circ}C$ unless otherwise noted)





Package Outline Dimensions(unit:mm)

SOD-123



SOD-123		
Dim	Min	Max
A	1.45	1.75
B	2.55	2.85
C	1.00	1.30
D	0.50	0.60
E	0.25	0.45
H	0.02	0.10
J	0.05	0.15
K	3.55	3.85

Mounting Pad Layout(unit:mm)

SOD-123

