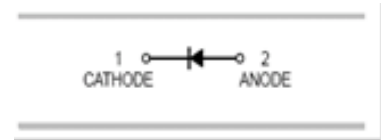


Features

- Low turn-on voltage
- Fast switching
- PN junction guard for transient and ESD protection

HF



Typical Applications

- High speed switching applications
- Circuit protecting
- Voltage clamping



Mechanical Data

- Case: SOD-523
- Terminals: solderable per MIL-STD-202, Method 208

SOD-523

Ordering Information

Part Number	Package	Shipping	Marking Code
BAS40X	SOD-523	3000pcs / Tape & Reel	43

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

Thermal Characteristics

Parameter	Symbol	Limits	Unit
Thermal resistance junction to ambient air	$R_{\theta JA}$	667	$^{\circ}\text{C/W}$
Operating Junction Temperature Range	T_J	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}\text{C}$

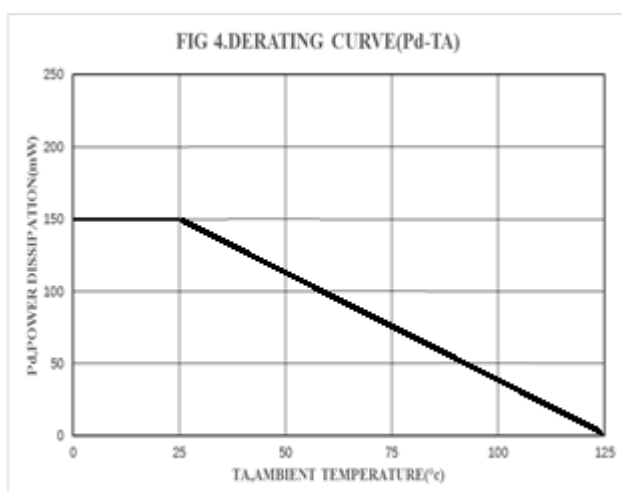
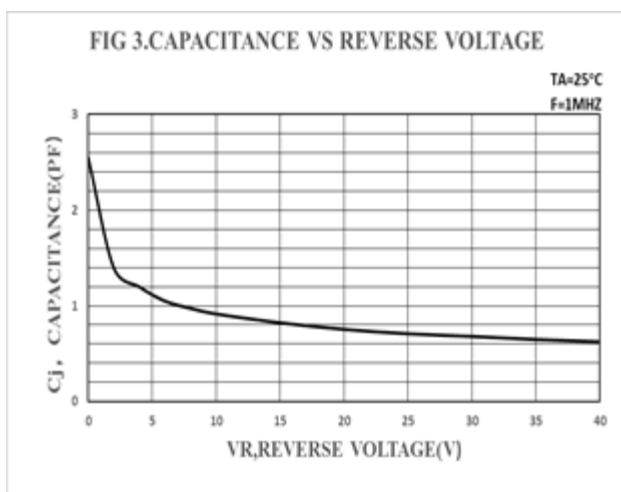
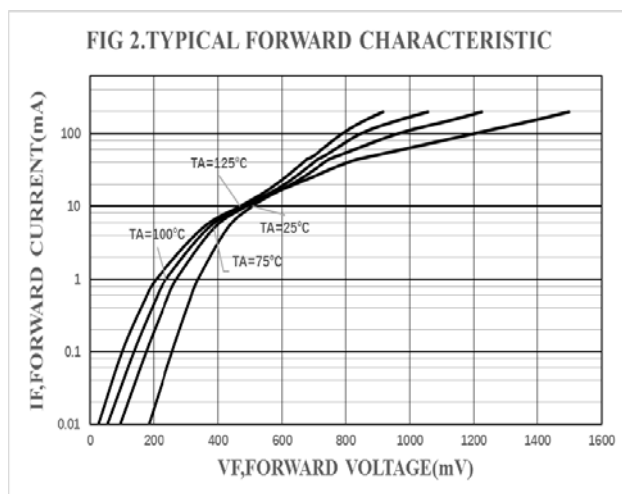
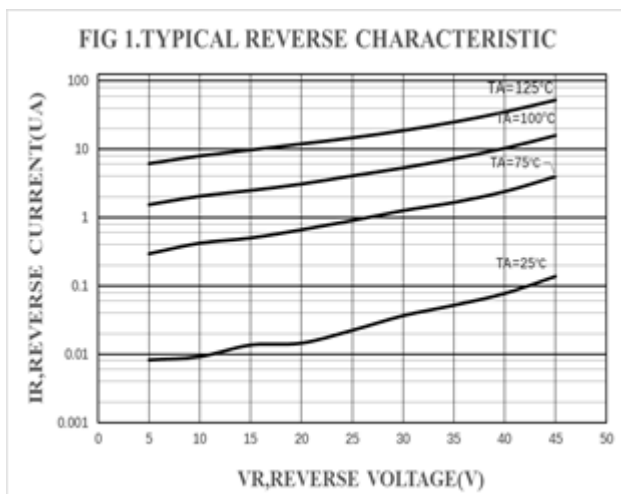
Electrical Characteristics (@ $T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage *1	V_F	$I_F=1\text{mA}$			0.38	V
		$I_F=40\text{mA}$			1	V
Reverse current *2	I_R	$V_R=30\text{V}$			0.2	μA
Capacitance Between Terminals	C_T	$V_R=0\text{V}, f=1\text{MHz}$		2.5	5	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10\text{mA}$ $I_{rr}=1.0\text{mA}, R_L=100\Omega$			5	ns

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

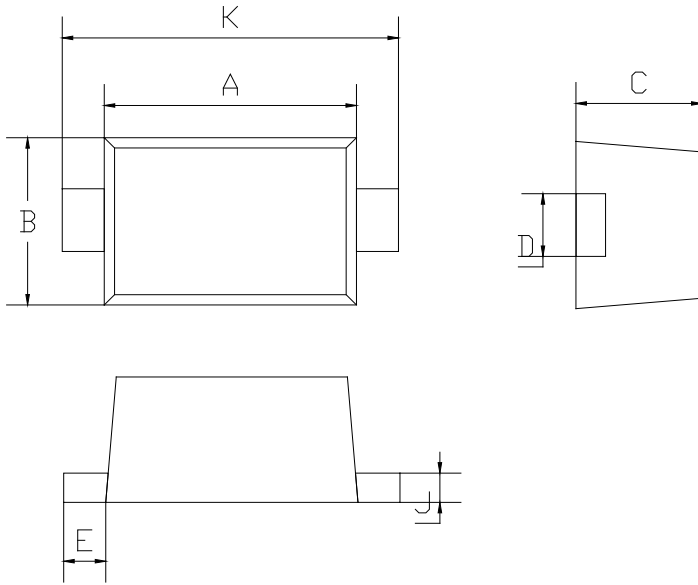
*2: pulse test, $t_p \leq 5\text{ms}$

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



Package Outline Dimensions (unit: mm)

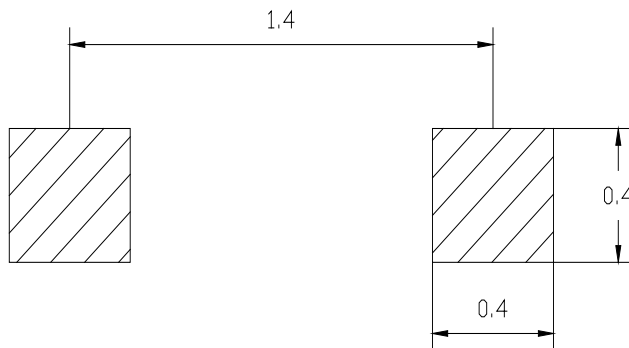
SOD-523



SOD-523		
Dim	Min	Max
A	1.10	1.30
B	0.70	0.90
C	0.50	0.70
D	0.25	0.35
E	0.15	0.25
J	0.05	0.15
K	1.50	1.70

Mounting Pad Layout (unit: mm)

SOD-523



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