

Features

- Low turn-on voltage
- Fast switching
- PN junction guard for transient and ESD protection
- Designed for surface mount application
- Plastic material-UL recognition flammability classification 94V-O



Lead-free



Typical Applications

- Surface mount fast switching diode

Mechanical Data

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



SOD-323

Ordering Information

Part Number	Package	Shipping	Marking Code
BAS40WS□	SOD-323	3000/Tape&Reel	43

□: none is for Lead Free package;

“G” is for Halogen Free package.

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	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	$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	T_j	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}\text{C}$

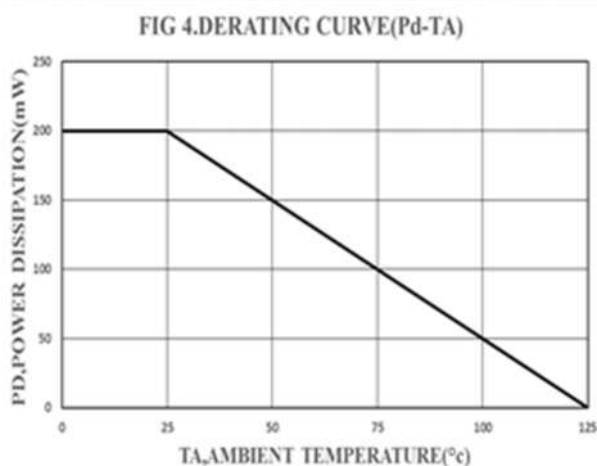
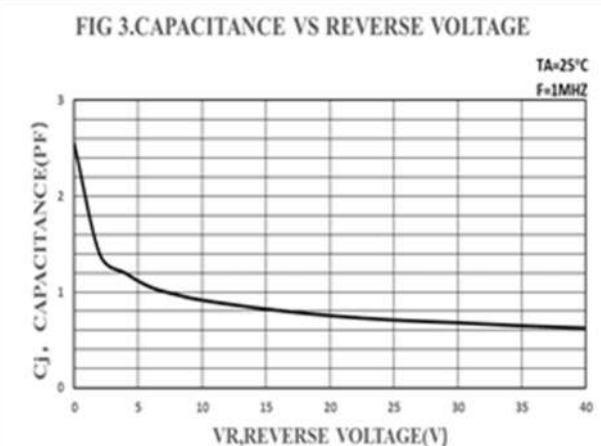
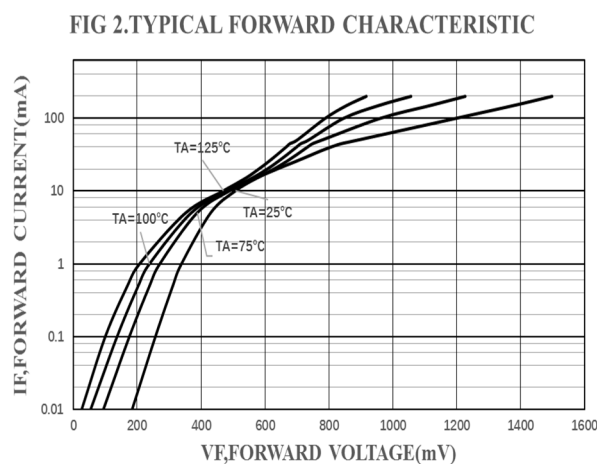
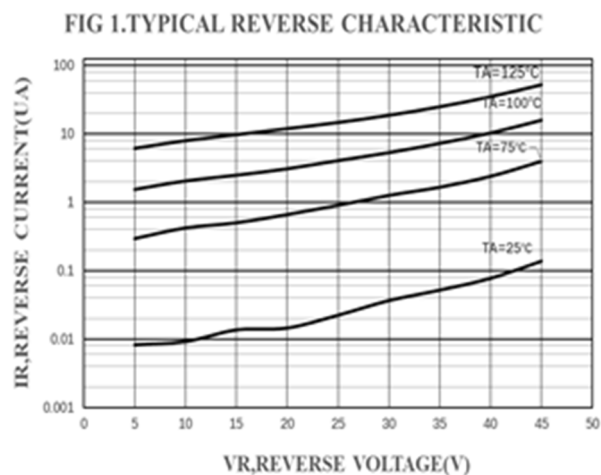
Electrical Characteristics (@ $T_A=25^{\circ}\text{C}$ unless otherwise specified)

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, $t_p \leq 300\mu\text{s}$

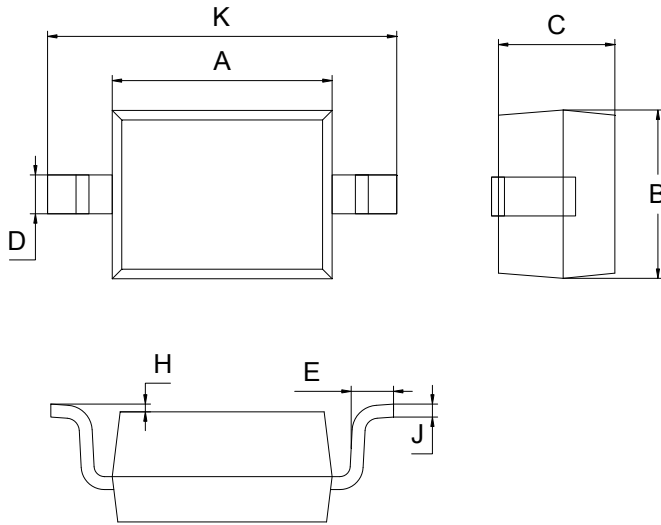
*2: pulse test, $t_p \leq 5\text{ms}$

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



Package Outline Dimensions(unit:mm)

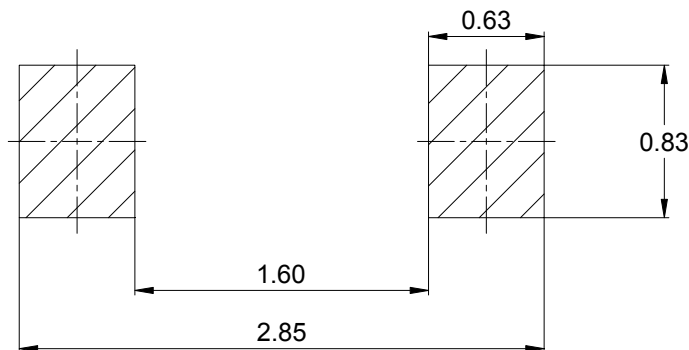
SOD-323



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



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