

Features

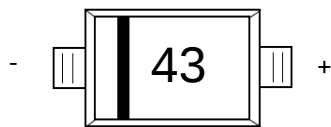
- Low Turn-on Voltage
- Designed for Surface Mount Application
- PN Junction Guard for Transient and ESD Protection
- Fast Switching
- Plastic Material –UL Recognition Flammability Classification 94V-O



SOD-323 top view



Schematic diagram



Marking and pin assignment



Halogen-Free

Maximum Ratings($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_R	Reverse Voltage	40	V
V_{RRM}	Peak Repetitive Reverse Voltage	40	V
V_{RWM}	Working Peak Reverse Voltage	40	V
I_F	Forward Continuous Current	200	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current@ $t=8.3\text{ms}$	600	mA
P_D	Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	500	$^{\circ}\text{C/W}$
T_J	Operating Junction Temperature Range	$-40\sim+125$	$^{\circ}\text{C}$
T_{stg}	Operation Junction and Storage Temperature Range	$-55\sim+150$	$^{\circ}\text{C}$

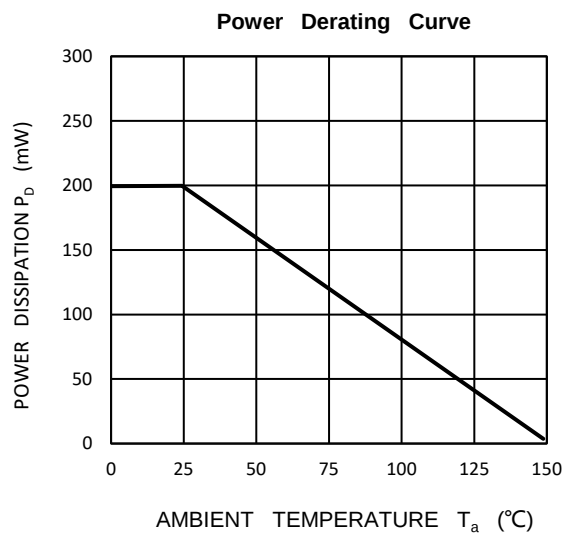
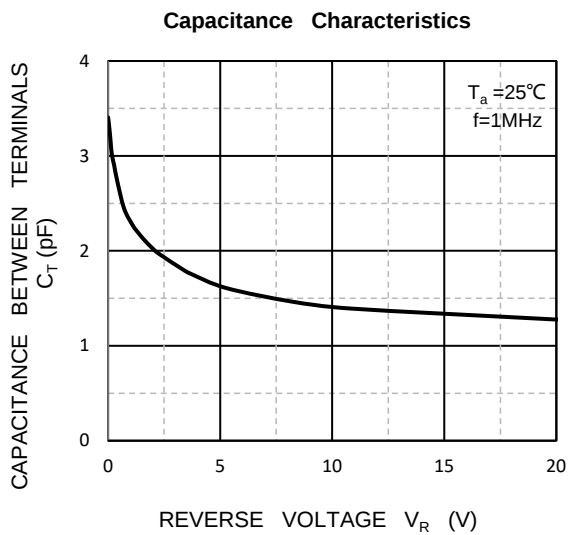
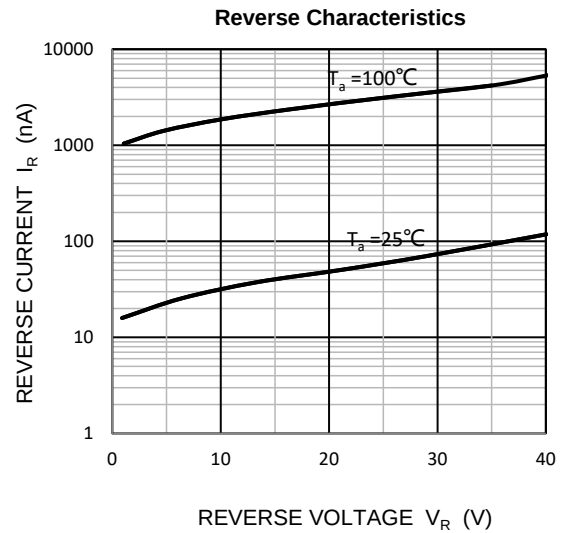
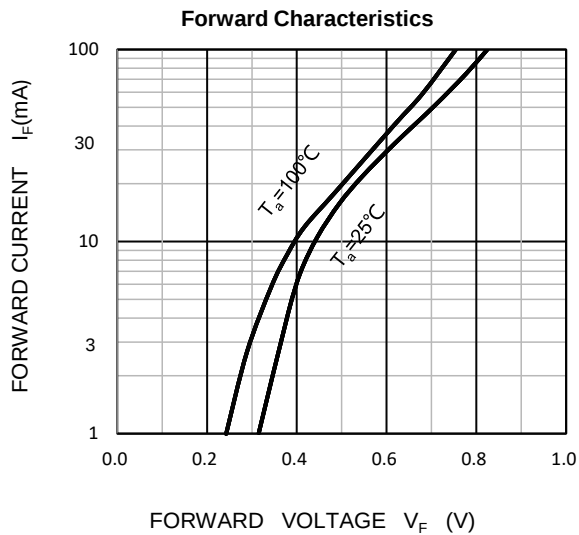
ELECTRICAL CHARACTERISTICS($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{(BR)}$	Reverse voltage	$I_R=10\mu\text{A}$	40	--	--	V
I_R	Reverse voltage leakage current	$V_R=30\text{V}$	--	20	200	nA
V_F	Forward voltage	$I_{F1}=1\text{mA}$	--	--	0.38	V
		$I_{F2}=10\text{mA}$	--	--	0.5	
		$I_{F3}=40\text{mA}$	--	--	1	
C_{tot}	Total capacitance	$V_R=0\text{V}, f=1\text{MHz}$	--	4	5	pF
t_{rr}	Reverse recovery time	$I_F=I_R=10\text{mA}, I_{rr}=0.1I_R, R_L=100\Omega$	--	--	5	ns

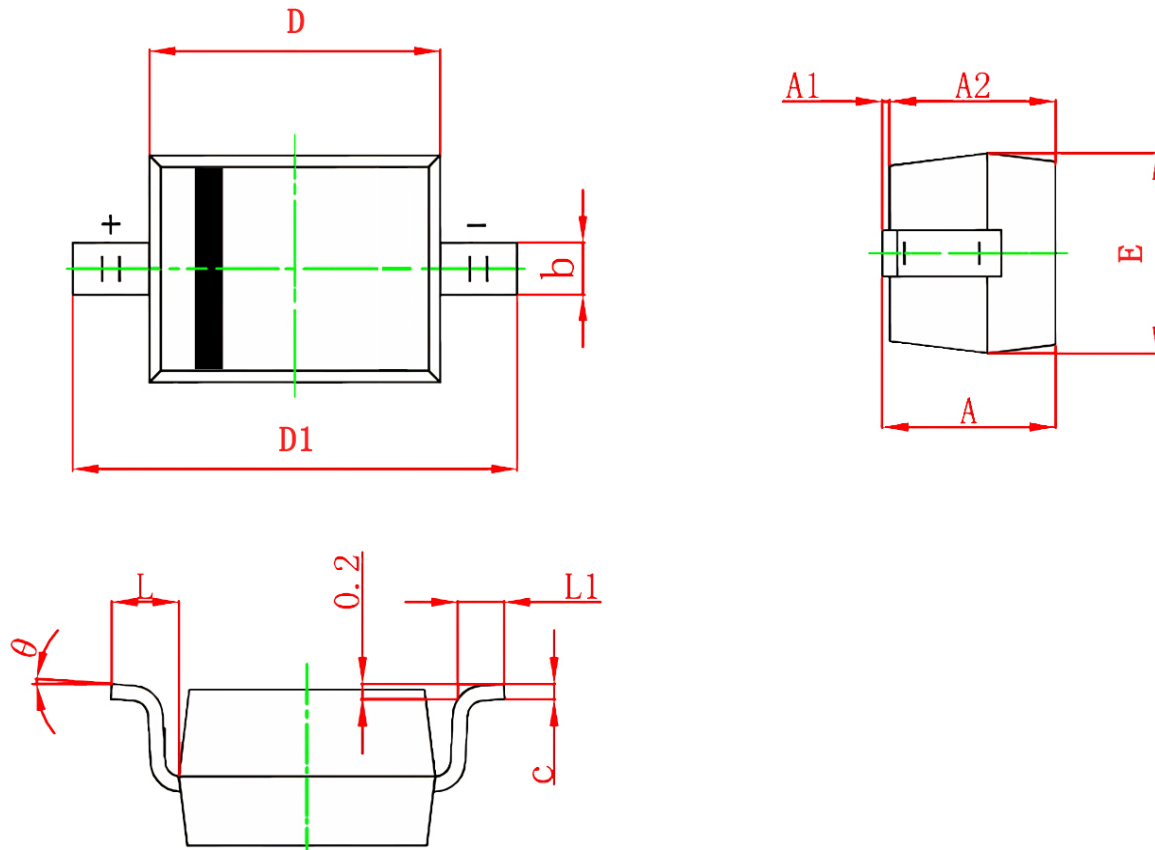
Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
BAS40WS	SOD-323	43	3,000	45,000	180,000	7"reel

Typical Operating Characteristics



SOD-323 Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	-	1.100	-	0.043
A1	0.000	0.100	0.000	0.004
A2	0.800	1.000	0.031	0.039
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.600	1.800	0.063	0.071
D1	2.500	2.750	0.098	0.108
E	1.200	1.400	0.047	0.055
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°