

Features

- Low Forward voltage drop.
- High breakdown voltage.
- Guard ring protected.
- Low capacitance.

HF

Typical Applications

- For high speed switching applications.

Mechanical Data

- Case: SOD-123, SOD-323, SOD-523, DFN1006-2
- Terminals: solderable per MIL-STD-202, Method 208.



BAS70H
SOD-123

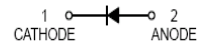
BAS70WS
SOD-323



BAS70X
SOD-523



BAS70L
DFN1006-2



Ordering Information

Part Number	Package	Shipping	Marking Code
BAS70H	SOD-123	3000/Tape Reel	73
BAS70WS	SOD-323	3000/Tape Reel	K73
BAS70X	SOD-523	3000/Tape Reel	73
BAS70L	DFN1006-2	10000/Tape Reel	73

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

Parameter	Symbol	Limits	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	70	V
Working Peak Reverse Voltage	V _{RWM}		
DC Reverse Voltage	V _R		
Forward Continuous Current *	I _F	70	mA
Non-Repetitive Peak Forward Surge Current@t _p =8.3ms	I _{FSM}	100	mA

Thermal Characteristics

Parameter	Symbol	BAS70H	BAS70WS	BAS70X	BAS70L	Units
Power dissipation	P _D	400	200	150	100	mW
Typical thermal resistance per leg	R _{θJA} *	250	500	667	1000	°C/W
Operating junction temperature range	T _J	125				°C
Storage temperature range	T _{STG}	-55 to +150				°C

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

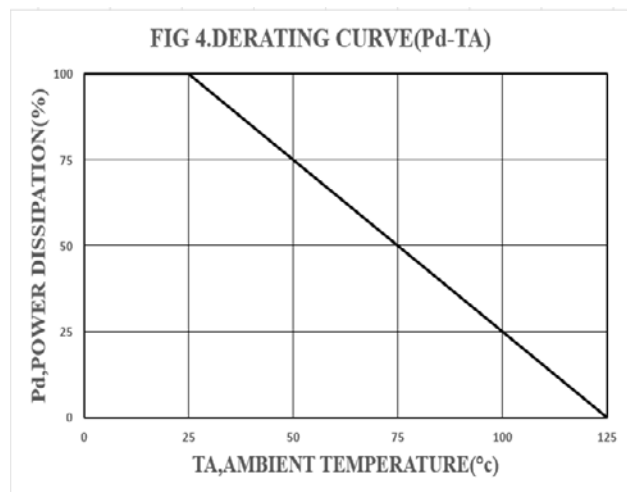
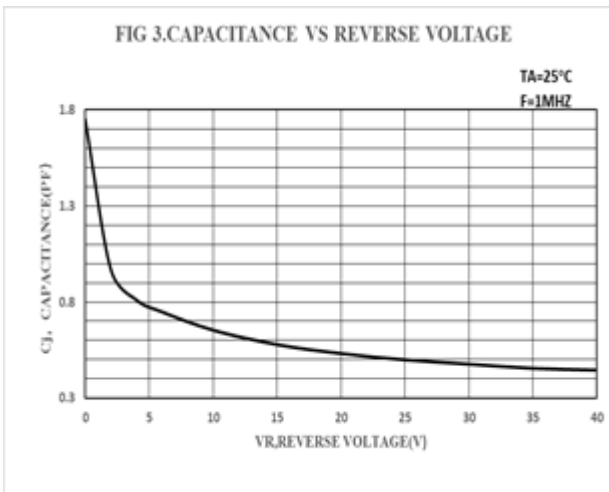
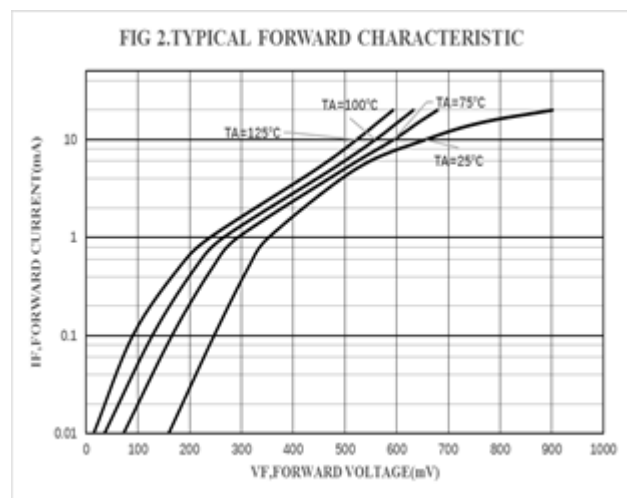
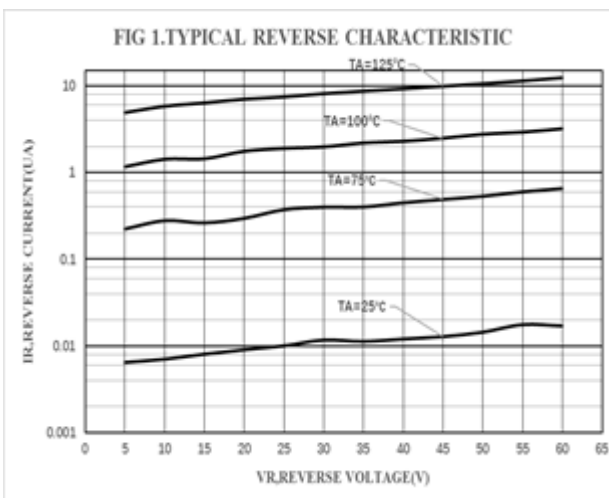
Electrical Characteristics (@ $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward Voltage *1	V_F	$I_F=1\text{mA}$			0.41	V
		$I_F=15\text{mA}$			1	V
Reverse Leakage Current *2	I_R	$V_R=50\text{V}$			100	nA
Capacitance Between Terminals	C_T	$V_R=0\text{V}, f=1\text{MHz}$			2	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10\text{mA}, R_L=100\Omega$			5	ns

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

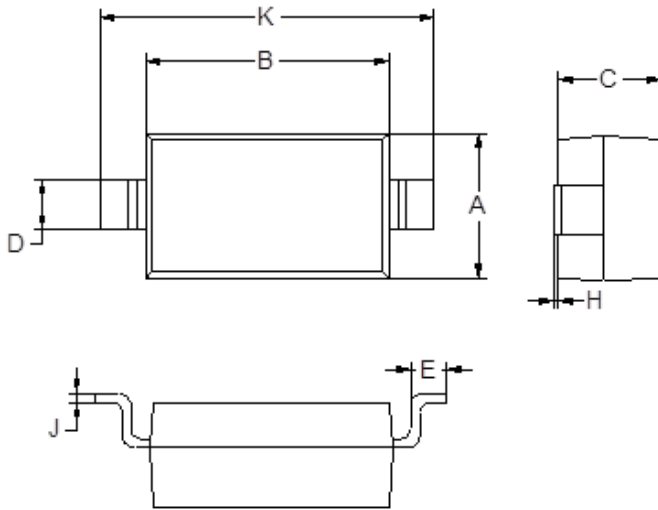
*2: pulse test, $t_p \leq 5\text{ms}$

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



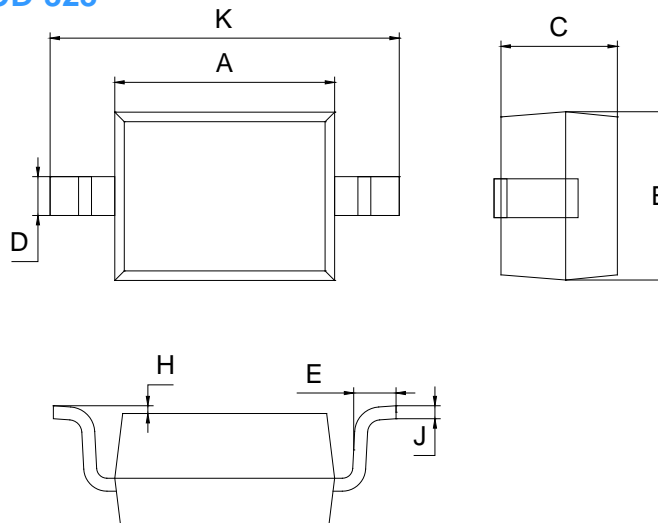
Package Outline Dimensions (unit:mm)

SOD-123



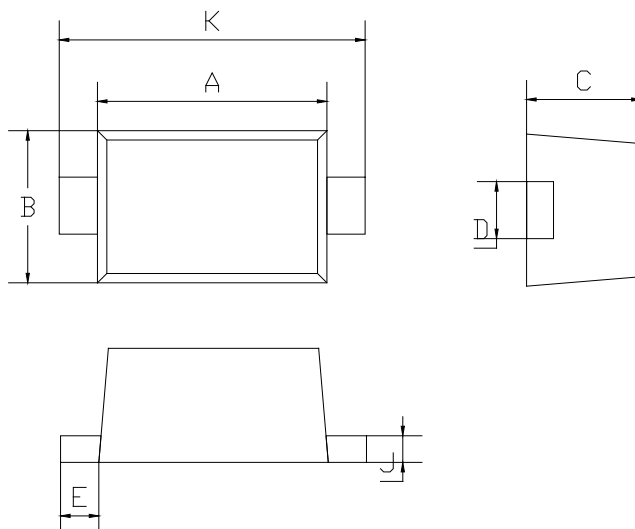
SOD-123		
Dim	Min	Max
A	1.45	1.75
B	2.55	2.85
C	1.00	1.30
D	0.50	0.60
E	0.25	0.45
H	0.02	0.10
J	0.05	0.15
K	3.55	3.85

SOD-323



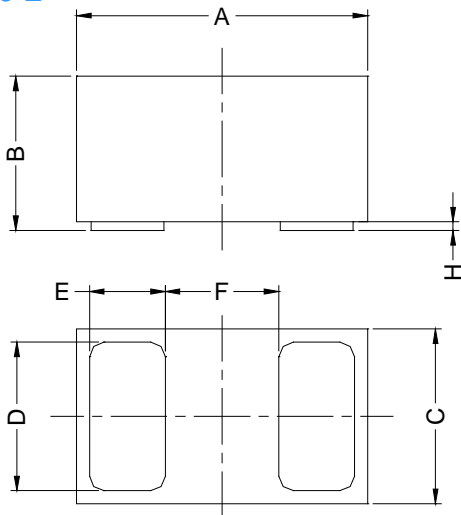
SOD-323		
Dim	Min	Max
A	1.60	1.80
B	1.20	1.40
C	0.80	0.90
D	0.25	0.35
E	0.22	0.42
H	0.02	0.10
J	0.05	0.15
K	2.55	2.75

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

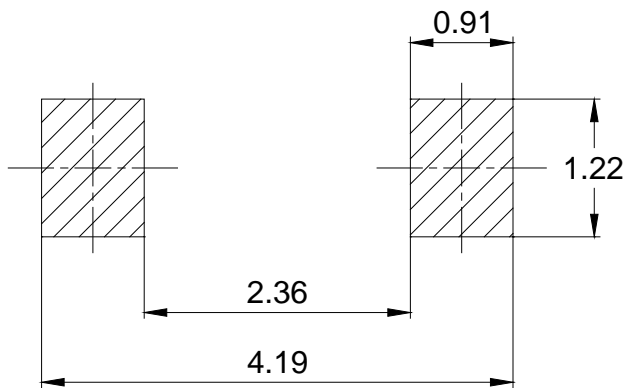
DFN1006-2



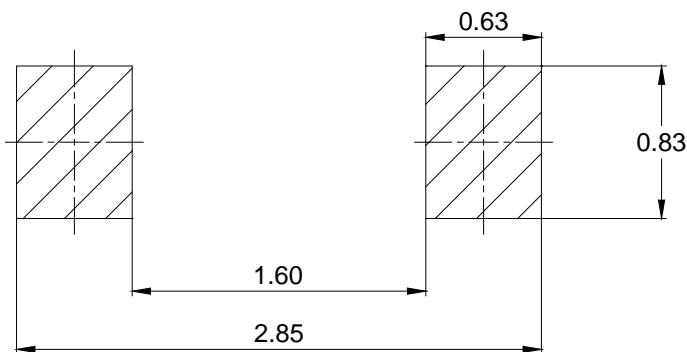
DFN1006-2			
Dim	Min	Typ	Max
A	0.95	1.00	1.075
B	0.47	0.50	0.53
C	0.55	0.60	0.675
D	0.45	0.50	0.55
E	0.20	0.25	0.30
F	-	0.40	-
H	0	0.03	0.05

Mounting Pad Layout(unit:mm)

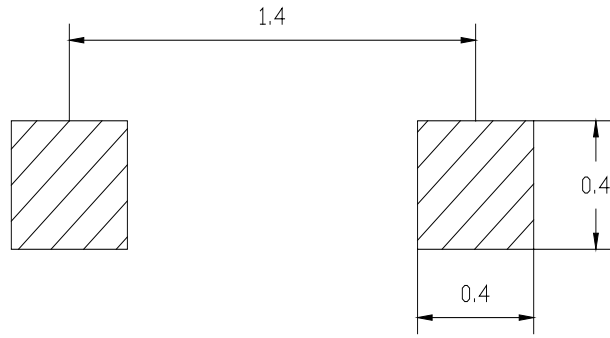
SOD-123



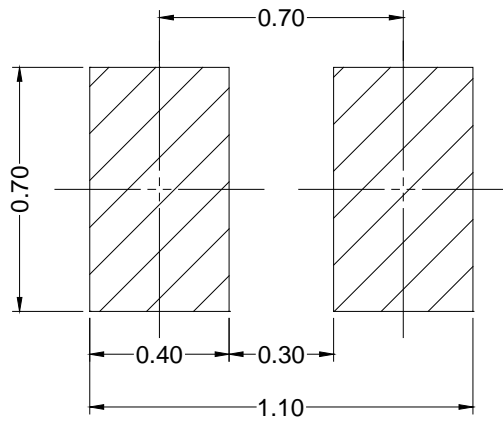
SOD-323



SOD-523



DFN1006-2



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