

## Features

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

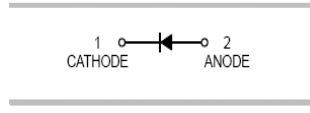
**HF**

## 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

1 CATHODE      2 ANODE

## 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<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Limits	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	70	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Reverse Voltage	V <sub>R</sub>		
Forward Continuous Current *	I <sub>F</sub>	70	mA
Non-Repetitive Peak Forward Surge Current @ t <sub>p</sub> =8.3ms	I <sub>FSM</sub>	100	mA

## Thermal Characteristics

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

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

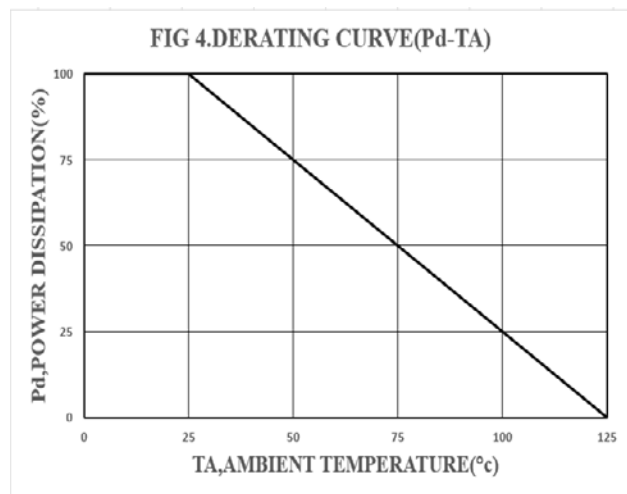
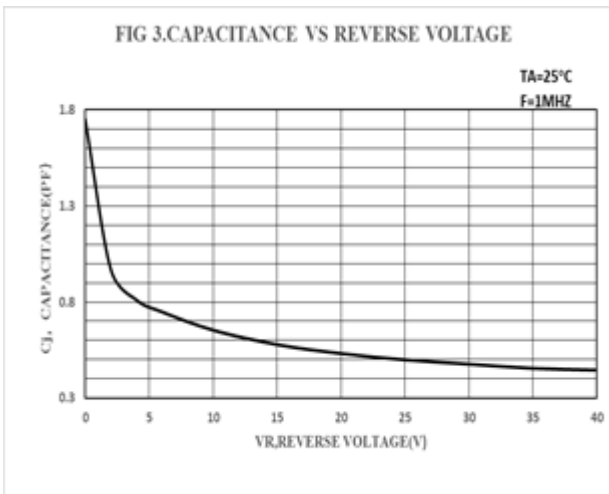
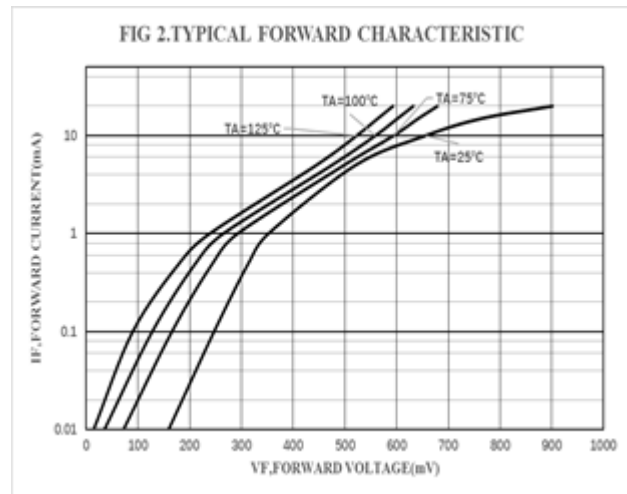
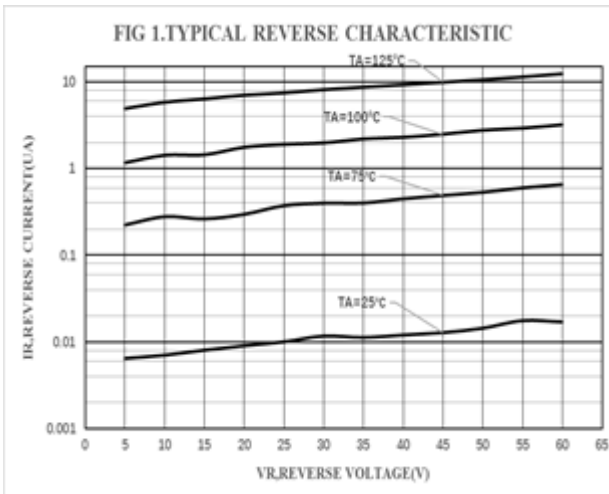
### Electrical Characteristics (@ $T_A=25^\circ\text{C}$ unless otherwise specified)

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

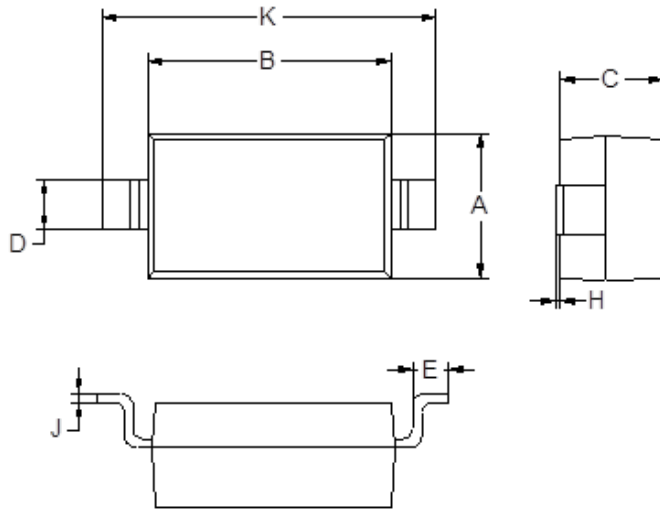
\*2: pulse test,  $t_p \leq 5\text{ms}$

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



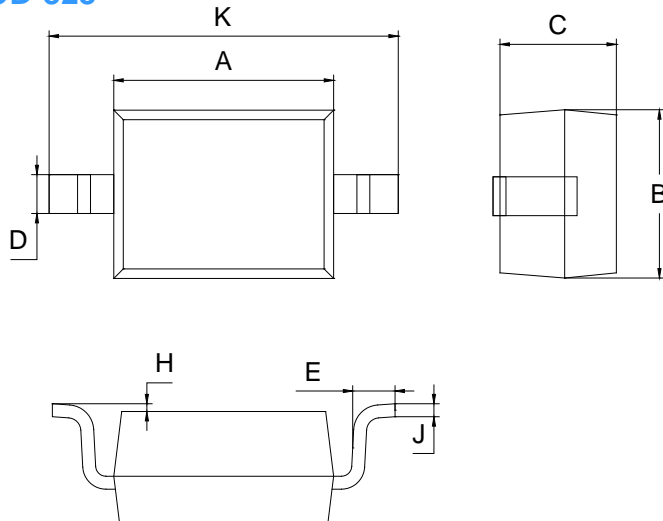
### Package Outline Dimensions (unit:mm)

#### SOD-123



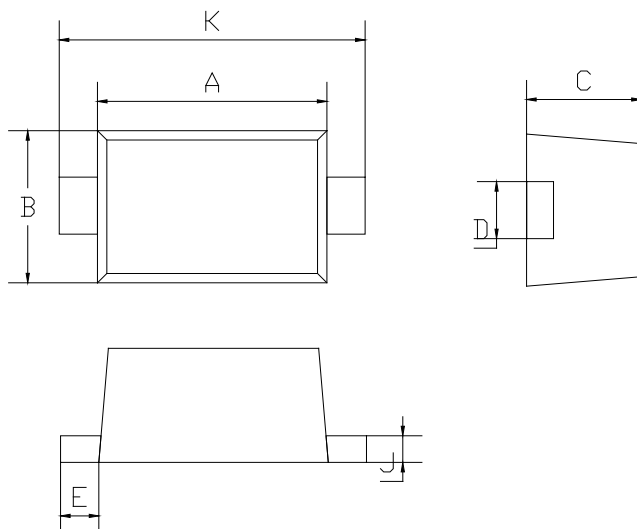
SOD-123		
Dim	Min	Max
A	1.45	1.75
B	2.55	2.85
C	1.00	1.30
D	0.50	0.60
E	0.25	0.45
H	0.02	0.10
J	0.05	0.15
K	3.55	3.85

#### SOD-323



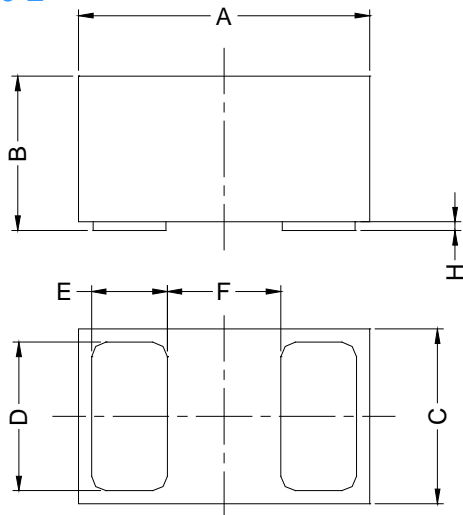
SOD-323		
Dim	Min	Max
A	1.60	1.80
B	1.20	1.40
C	0.80	0.90
D	0.25	0.35
E	0.22	0.42
H	0.02	0.10
J	0.05	0.15
K	2.55	2.75

#### 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

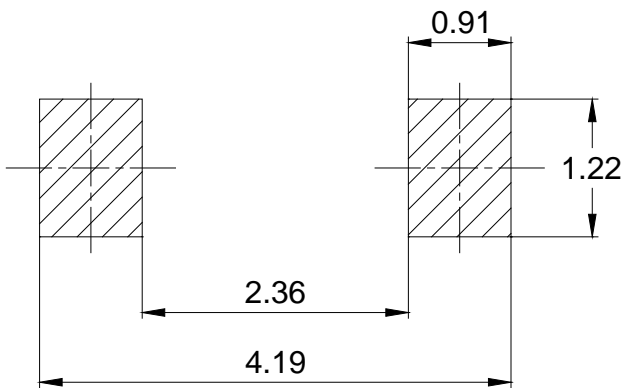
#### DFN1006-2



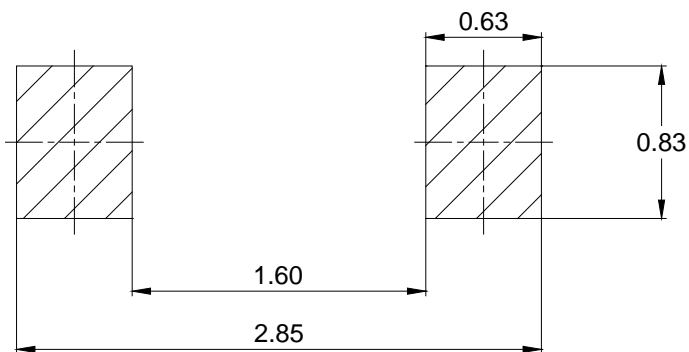
DFN1006-2			
Dim	Min	Typ	Max
A	0.95	1.00	1.075
B	0.47	0.50	0.53
C	0.55	0.60	0.675
D	0.45	0.50	0.55
E	0.20	0.25	0.30
F	-	0.40	-
H	0	0.03	0.05

#### Mounting Pad Layout(unit:mm)

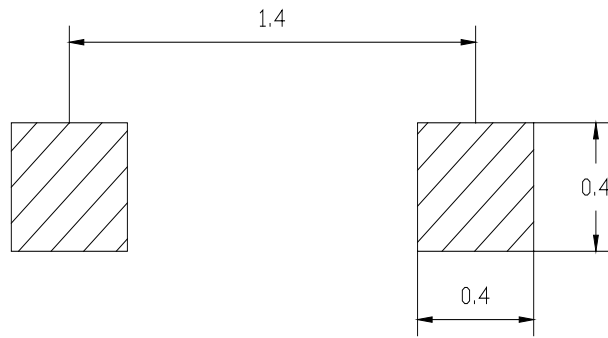
##### SOD-123



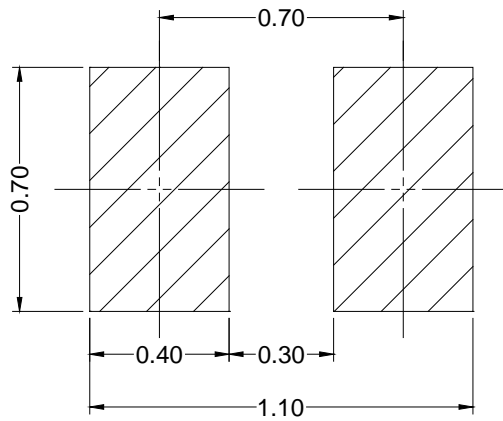
##### SOD-323



**SOD-523**



**DFN1006-2**



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