

### Features

- Low Forward voltage drop
- High breakdown voltage
- Guard ring protected
- Low capacitance
- Very small SMD package

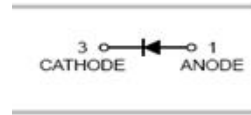
HF

### Typical Applications

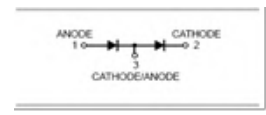
- For high speed switching applications

### Mechanical Data

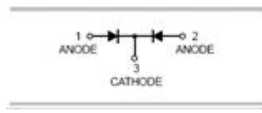
- Case: SOT-323
- Terminals: solderable per MIL-STD-202, Method 208



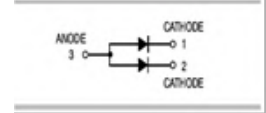
BAS70W



BAS70W-04



BAS70W-05



BAS70W-06



SOT-323

### Ordering Information

Part Number	Package	Shipping	Marking Code
BAS70W	SOT-323	3000 pcs / Tape & Reel	K73
BAS70W-04	SOT-323	3000 pcs / Tape & Reel	K74
BAS70W-05	SOT-323	3000 pcs / Tape & Reel	K75
BAS70W-06	SOT-323	3000 pcs / Tape & Reel	K76

### 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
Power Dissipation *	P <sub>d</sub>	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	$^{\circ}C/W$
Operating Junction Temperature Range	$T_j$	-55 to +125	$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^{\circ}C$

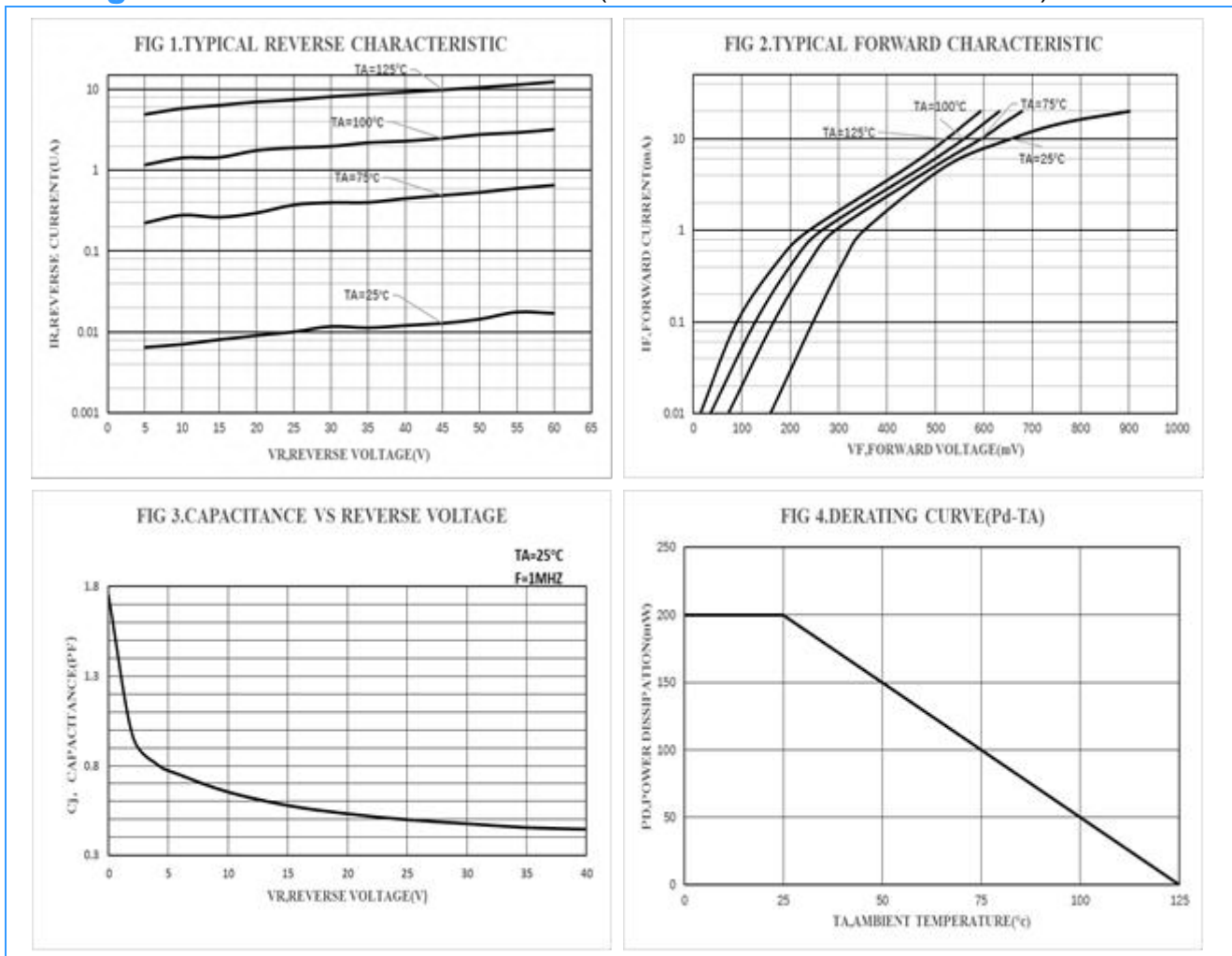
### Electrical Characteristics (@ $T_A=25^{\circ}C$ unless otherwise specified)

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

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

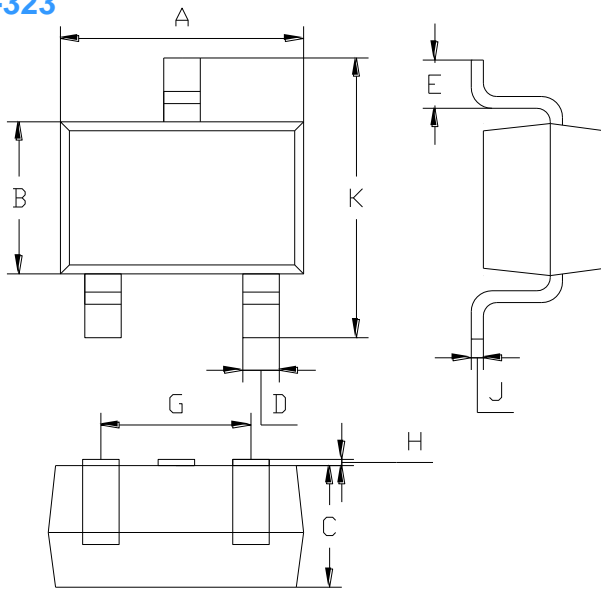
\*2: pulse test,  $t_p \leq 5ms$

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



**Package Outline Dimensions**(unit:mm)

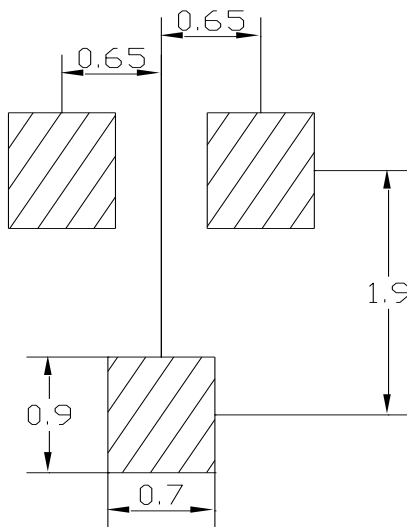
**SOT-323**



SOT-323		
Dim	Min	Max
A	1.80	2.20
B	1.15	1.35
C	0.90	1.10
D	0.15	0.35
E	0.25	0.40
G	1.20	1.40
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40

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

**SOT-323**



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