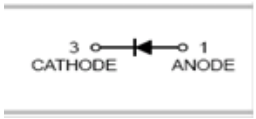
BAS70W/-04/-05/-06

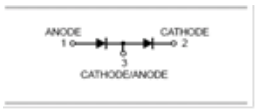
Small Signal Schottky Barrier Diode

Features

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



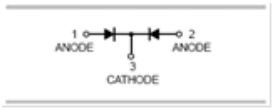
BAS70W



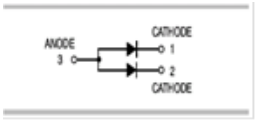
BAS70W-04

Typical Applications

- For high speed switching applications



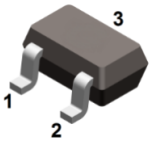
BAS70W-05



BAS70W-06

Mechanical Data

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



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_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Reverse Voltage	V_{RRM} V_{RWM} V_R	70	V
Forward Continuous Current *	I_F	70	mA
Non-Repetitive Peak Forward Surge Current @ t_p = 8.3ms	I_{FSM}	100	mA
Power Dissipation *	P_D	200	mW
* part mounted on FR-4 board with recommended pad layout			

Thermal Characteristics

Parameter	Symbol	Value	Unit
Thermal Resistance Junction-to-Air *1	$R_{\theta JA}$	390	°C/W
Thermal Resistance Junction-to-Case *1	$R_{\theta JC}$	275	°C/W
Thermal Resistance Junction-to-Lead *1	$R_{\theta JL}$	350	°C/W
Operating Junction Temperature Range	T_J	-55 ~ +125	°C
Storage Temperature Range	T_{STG}	-55 ~ +150	°C

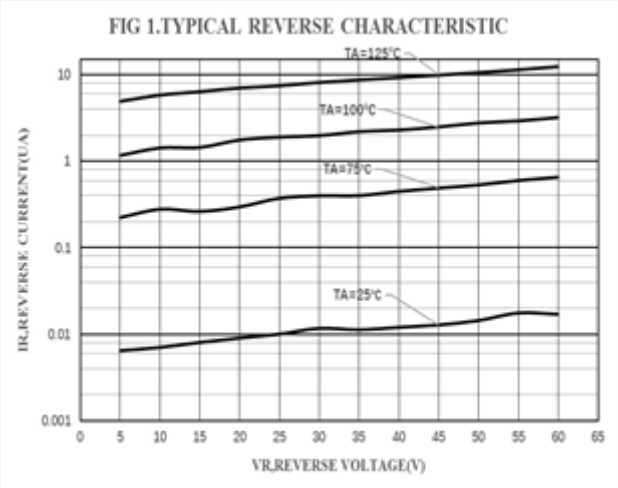
Electrical Characteristics (@ T_A = 25°C unless otherwise specified)

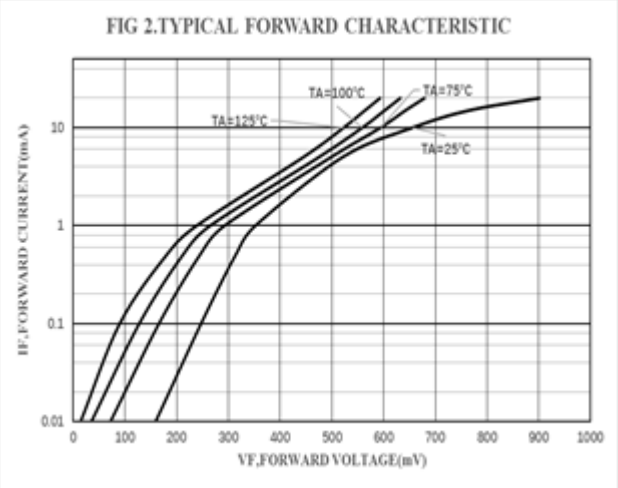
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward Voltage *2	V_F	I_F = 1mA			0.41	V
		I_F = 15mA			1	V
Reverse Leakage Current *3	I_R	V_R = 50V			100	nA
Capacitance Between Terminals	C_T	V_R = 0V, f = 1MHz			2	pF
Reverse Recovery Time	t_{rr}	I_F = I_R = 10mA, R_L = 100Ω			5	ns

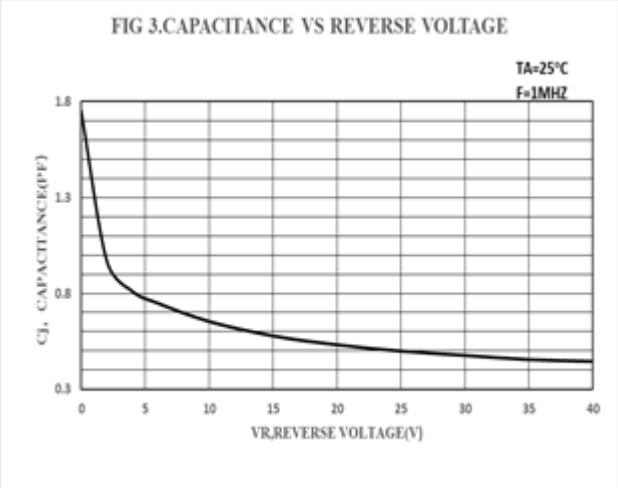
Notes:

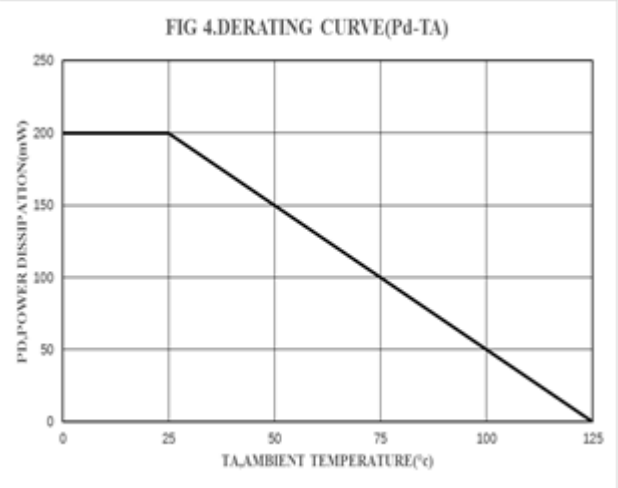
1. The data tested by surface mounted on a 1 inch^2 FR-4 board with 2OZ copper
2. Pulse test,tp≤300μs
3. Pulse test,tp≤5ms

Ratings and Characteristic Curves (@ T_A = 25°C unless otherwise specified)



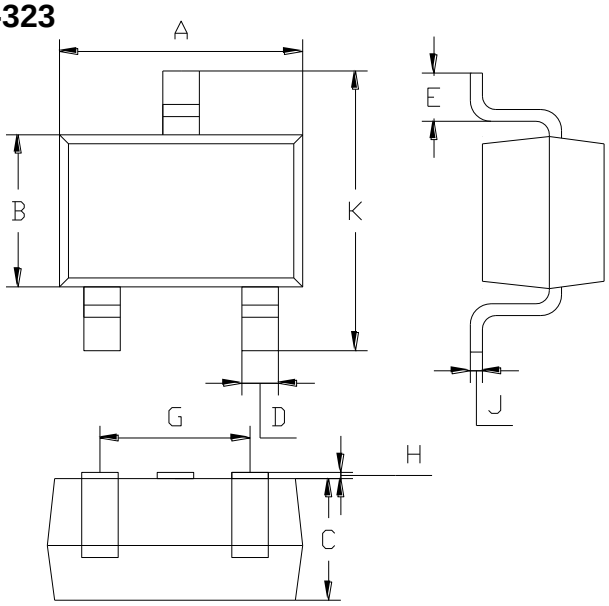






Package Outline Dimensions (unit: mm)

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