

## SOT-23 Surface Mount Schottky Barrier Rectifier

### Features

- $V_R$  70V
- $I_{F(AV)}$  0.07A
- High Current Capability
- Low Forward Voltage Drop
- Extremely Fast Switching Speed

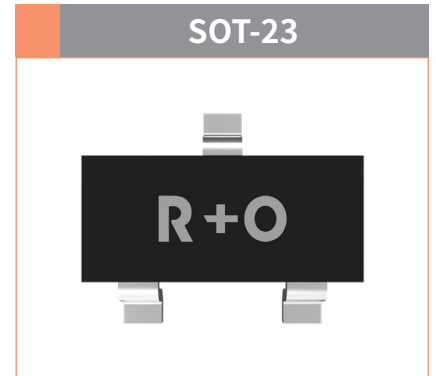
**Reverse Voltage**  
70 V  
**Forward Current**  
0.07 Ampere

### Applications

These Schottky barrier diodes are designed for high speed switching applications, circuit protection, and voltage clamping.

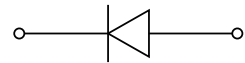
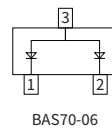
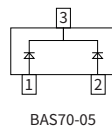
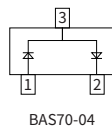
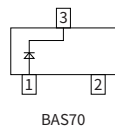
### Mechanical Data

- Case: SOT-23  
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode line denotes the cathode end



### Function Diagram

Marking:  
BAS70:73  
BAS70-04:74  
BAS70-05:75  
BAS70-06:76



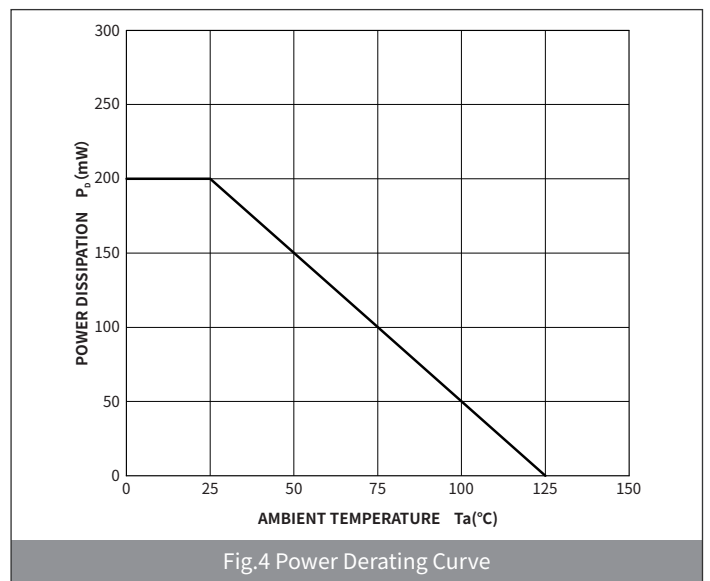
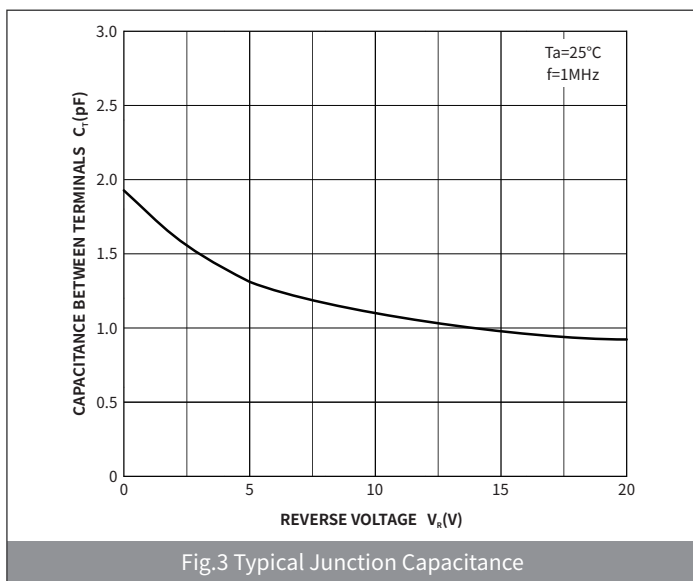
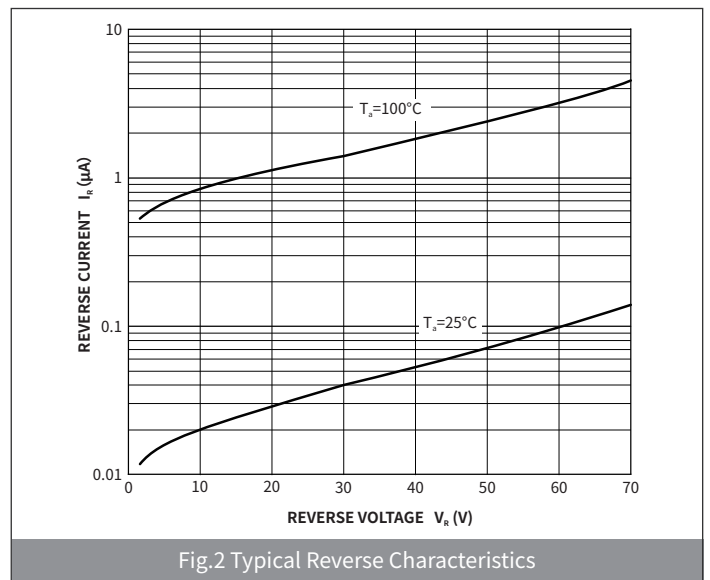
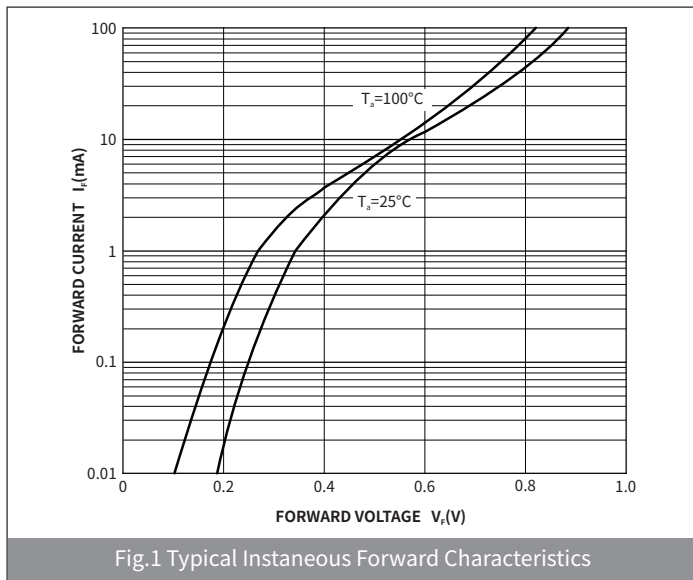
### Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	VALUE
Maximum repetitive peak reverse voltage	$V_{RRM}$	V	70
Maximum RMS voltage	$V_{RMS}$	V	49
Maximum DC blocking voltage	$V_{DC}$	V	70
Maximum average forward rectified current	$I_{F(AV)}$	mA	70
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	$I_{FSM}$	mA	100
Power Dissipation	$P_D$	mW	200
Junction Temperature	$T_j$	°C	-55 ~+125
Storage temperature range	$T_{STG}$	°C	-55 ~+125
Typical thermal resistance	$R_{\theta JA}$	°C /W	500

● **Electrical Characteristics** (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	Min	Typ	Max
Maximum forward voltage	I <sub>F</sub> = 1.0mA	V <sub>F</sub>	mV	—	—	410
	I <sub>F</sub> = 15mA			—	—	1000
Maximum reverse current	V <sub>R</sub> =50V	I <sub>R</sub>	μA	—	—	0.2
Capacitance between terminals	V <sub>R</sub> = 1.0V, f = 1MHz	C <sub>T</sub>	pF	—	2.0	—
Reverse breakdown voltage	I <sub>R</sub> =10μA	V <sub>R</sub>	V	—	—	70
Maximum reverse recovery time	I <sub>F</sub> =I <sub>R</sub> =10mA, I <sub>(REC)</sub> =1.0mA	t <sub>rr</sub>	ns	—	—	5.0

● **Ratings And Characteristics Curves** (Ta=25°C Unless otherwise specified)



# BAS70 THRU BAS70-06

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

## ● Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOT-23	R1	0.008	3000	45000	180000	7"

## ● Package Outline Dimensions (SOT-23)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.90	1.15	0.035	0.045
A1	-	0.10	-	0.004
A2	0.90	1.05	0.035	0.041
b	0.30	0.50	0.012	0.020
c	0.10	0.20	0.004	0.008
D	2.80	3.00	0.110	0.118
E	1.20	1.40	0.047	0.055
E1	2.25	2.55	0.089	0.100
e	0.950TYP		0.037TYP	
e1	1.80	2.00	0.071	0.079
L	0.550REF		0.022REF	
L1	0.30	0.50	0.012	0.020
$\theta$	-	8°	-	8°

## ● Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	0.75	0.85	0.030	0.033
K	0.85	0.95	0.033	0.037
M	1.95	2.05	0.077	0.081
N	1.85	1.95	0.073	0.077