

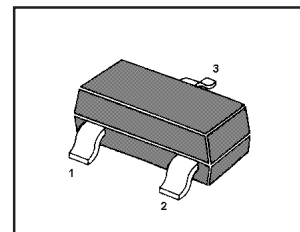
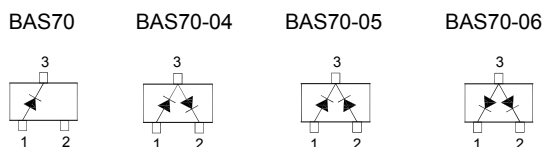
# BAS70 /-04/-05/-06

## Surface Mount Schottky Barrier Diode



### Features

- Low turn-on voltage
- Fast switching
- PN junction guard ring for transient and ESD protection



SOT-23 Plastic Package  
BAS70 Marking Code: **73**  
BAS70-04 Marking Code: **74**  
BAS70-05 Marking Code: **75**  
BAS70-06 Marking Code: **76**

### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	70	V
Non-Repetitive Peak Reverse Voltage	$V_{RSM}$	70	V
Maximum DC Blocking Voltage	$V_R$	70	V
Average Forward Rectified Current	$I_{F(AV)}$	70	mA
Peak Forward Surge Current ( $t < 10\text{ ms}$ )	$I_{FSM}$	100	mA
Power Dissipation	$P_D$	200	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_j$	- 55 to + 125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 150	$^\circ\text{C}$

### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 1\text{ mA}$ at $I_F = 15\text{ mA}$	$V_F$	- -	0.41 1	V
Reverse Breakdown Voltage at $I_R = 10\text{ }\mu\text{A}$	$V_{(BR)R}$	70	-	V
Reverse Current at $V_R = 50\text{ V}$	$I_R$	-	100	nA
Total Capacitance at $V_R = 0$ , $f = 1\text{ MHz}$	$C_T$	-	2	pF
Reverse Recovery Time at $I_F = I_R = 10\text{ mA}$ to $I_R = 1\text{ mA}$ , $R_L = 100\text{ }\Omega$	$t_{rr}$	-	5	ns

# BAS70 / -04 / -05 / -06

## RATING AND CHARACTERISTIC CURVES

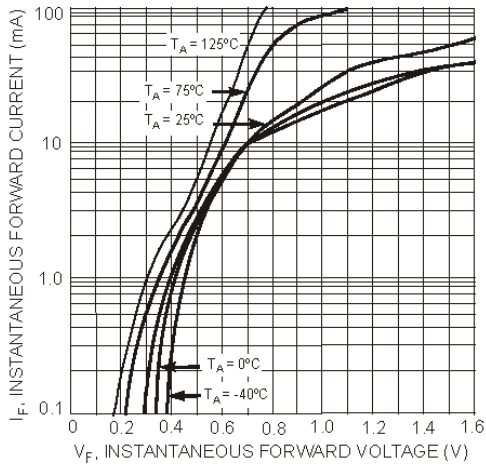


Fig. 1 Typical Forward Characteristics

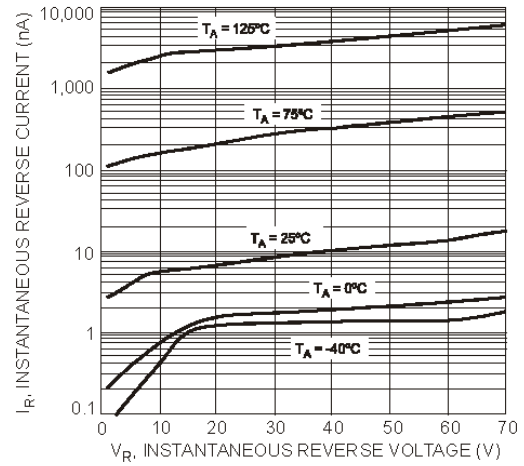


Fig. 2 Typical Reverse Characteristics

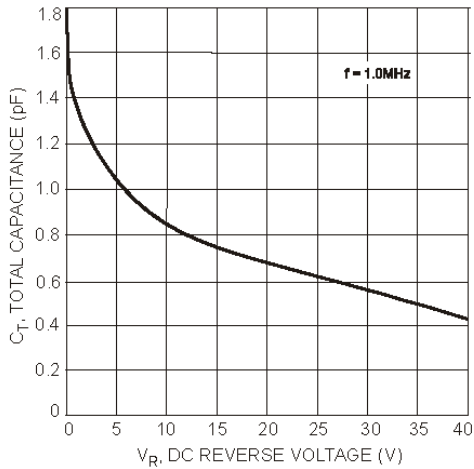


Fig. 3 Total Capacitance vs. Reverse Voltage

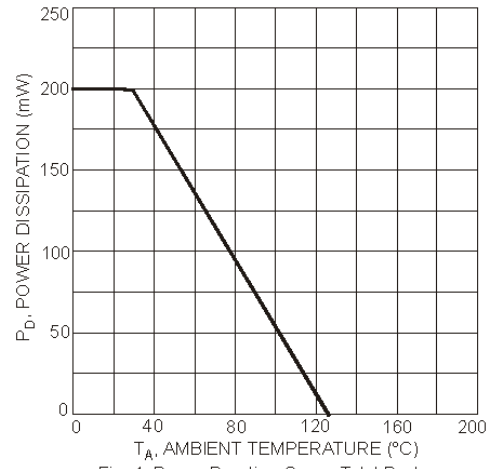


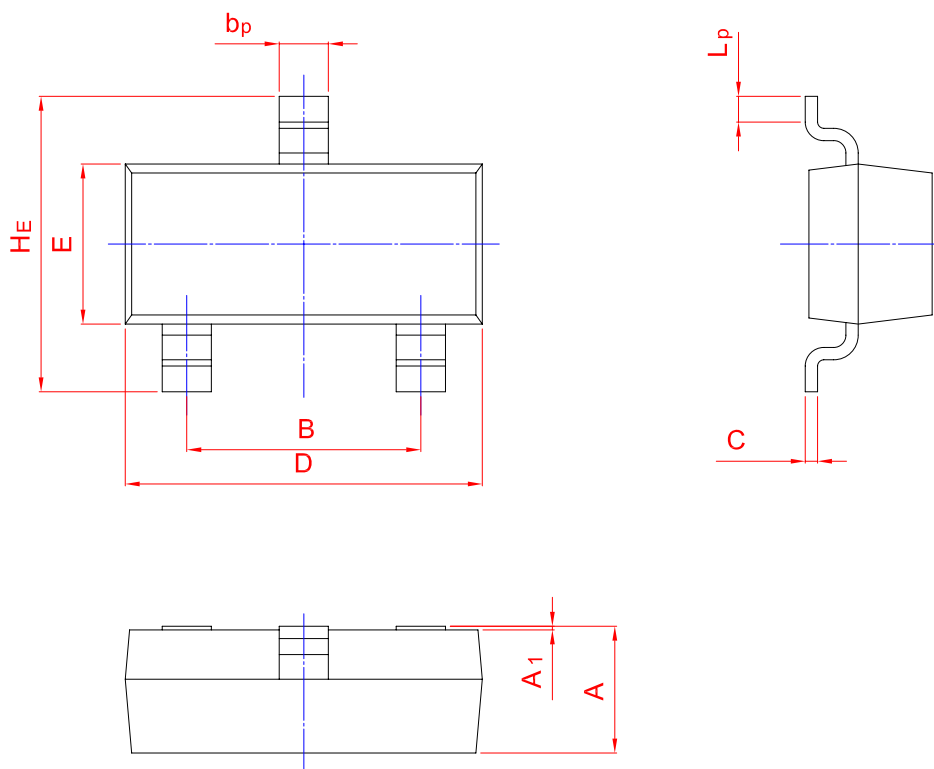
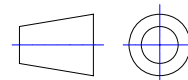
Fig. 4 Power Derating Curve, Total Package

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## PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	bp	C	D	E	Hε	A1	Lp
mm	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20