

# BAS70 / -04 / -05 / -06

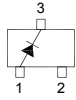


## Surface Mount Schottky Barrier Diode

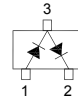
### Features

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

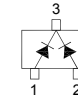
BAS70



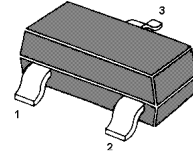
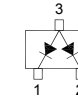
BAS70-04



BAS70-05



BAS70-06



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

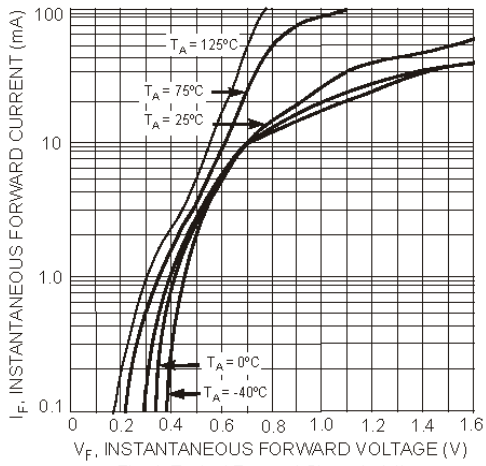


Fig. 1 Typical Forward Characteristics

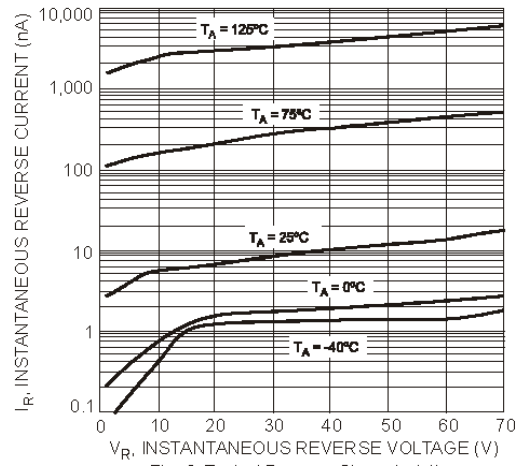


Fig. 2 Typical Reverse Characteristics

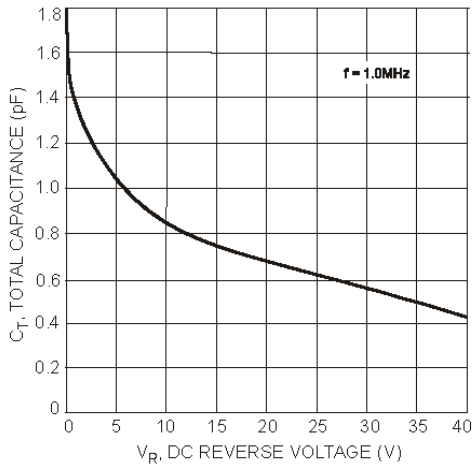


Fig. 3 Total Capacitance vs. Reverse Voltage

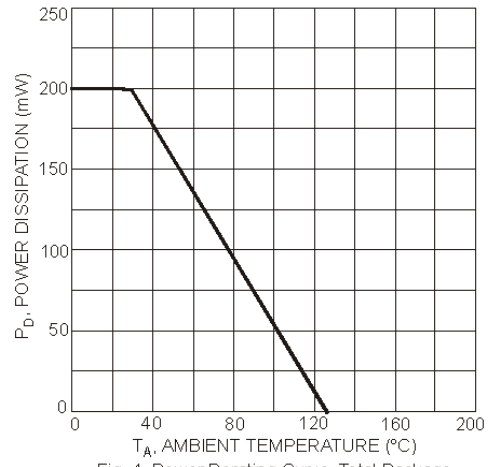


Fig. 4 Power Derating Curve, Total Package