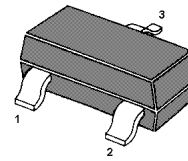


BAS70/-04/-05/-06 Surface Mount Schottky Barrier Diode

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

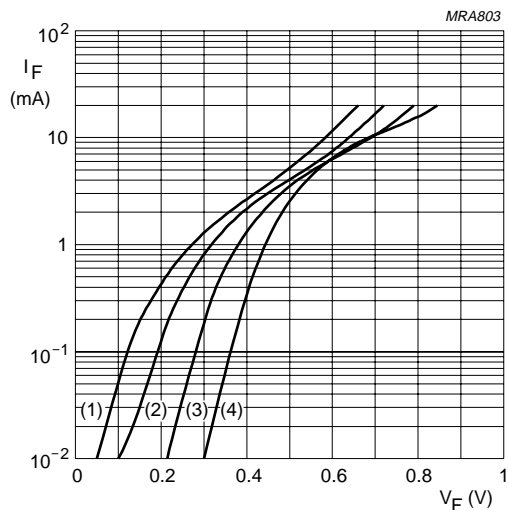
Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

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	$R_{\theta JA}$	500	$^\circ\text{C/W}$
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 $T_a = 25\text{ }^\circ\text{C}$

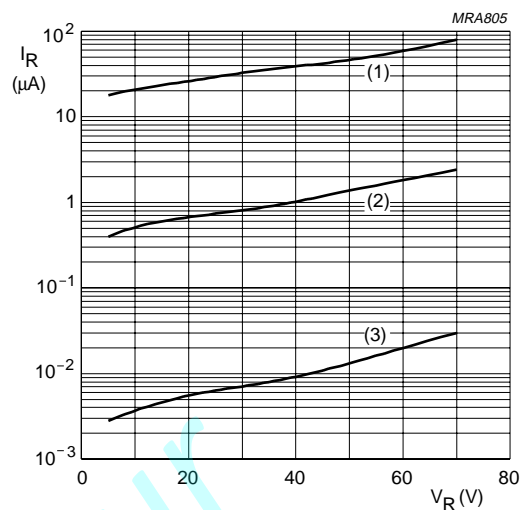
Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 1\text{ mA}$ at $I_F = 15\text{ mA}$	V_F	- -	0.41 1	V
Reverse Breakdown Voltage at $I_R = 10\text{ }\mu\text{A}$	$V_{(BR)R}$	70	-	V
Reverse Current at $V_R = 50\text{ V}$	I_R	-	100	nA
Total Capacitance at $V_R = 0$, $f = 1\text{ MHz}$	C_T	-	2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

Typical Characteristics



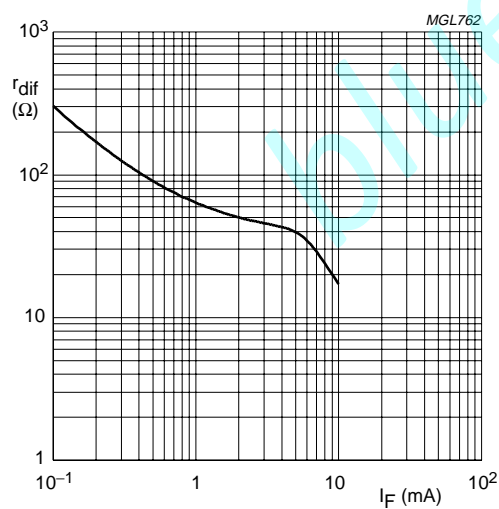
- (1) $T_{amb} = 125\text{ }^{\circ}\text{C}$.
- (2) $T_{amb} = 85\text{ }^{\circ}\text{C}$.
- (3) $T_{amb} = 25\text{ }^{\circ}\text{C}$.
- (4) $T_{amb} = -40\text{ }^{\circ}\text{C}$.

Fig.1 Forward current as a function of forward voltage; typical values.



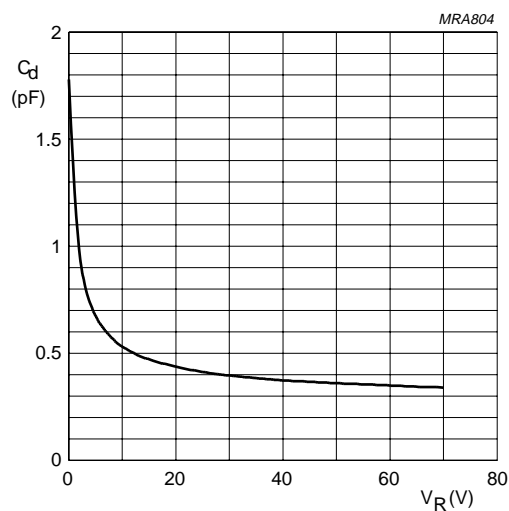
- (1) $T_{amb} = 150\text{ }^{\circ}\text{C}$.
- (2) $T_{amb} = 85\text{ }^{\circ}\text{C}$.
- (3) $T_{amb} = 25\text{ }^{\circ}\text{C}$.

Fig.2 Reverse current as a function of reverse voltage; typical values.



$f = 10\text{ kHz}$.

Fig.3 Differential forward resistance as a function of forward current; typical values.



$f = 1\text{ MHz}$.

Fig.4 Diode capacitance as a function of reverse voltage; typical values.

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23

