



THE DATASHEET OF BAS70-04



Features

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

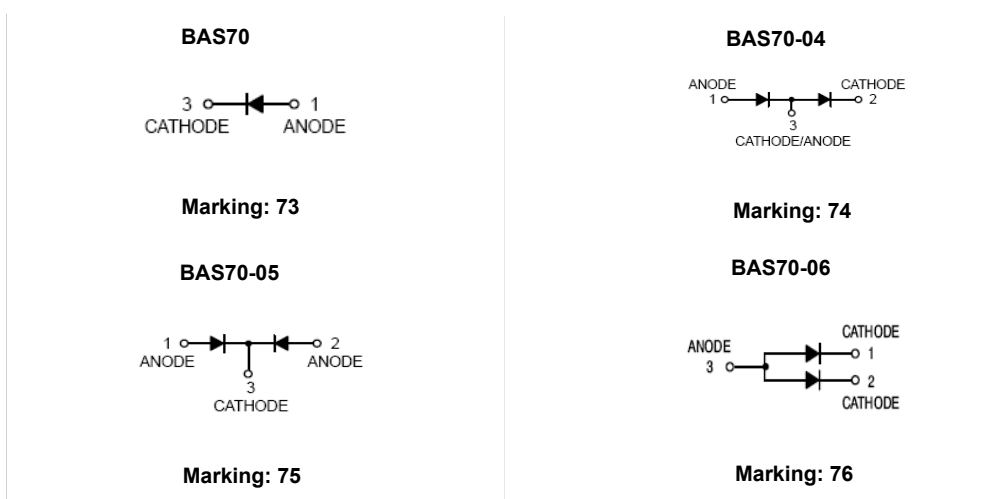
Applications

- High speed switching applications
- Circuit protecting
- Voltage clamping



SOT-23

Schematic Diagram and Marking



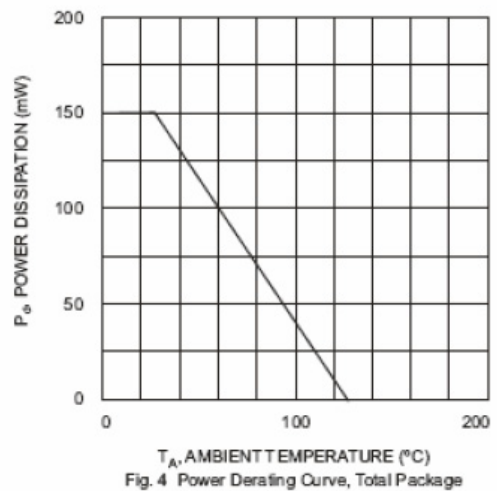
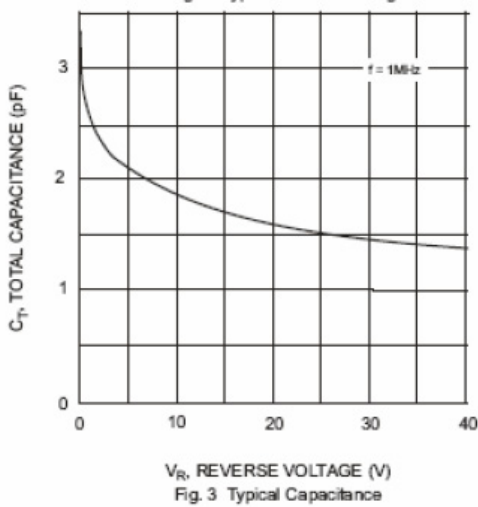
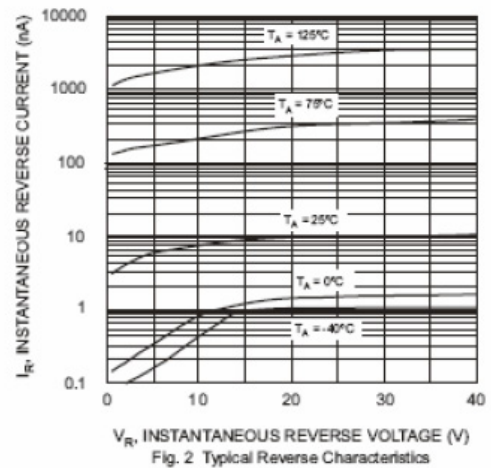
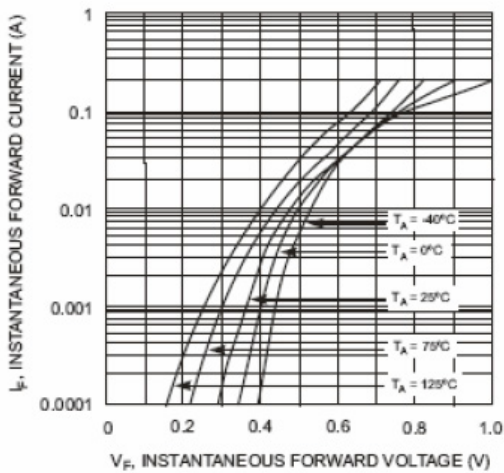
Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}		
Working Peak Reverse Voltage	V_{RWM}	70	V
DC Reverse Voltage	V_R		
RMS Reverse voltage	$V_{R(RMS)}$	49	V
Forward Continuous Current	I_F	70	mA
Non-Repetitive Peak Forward Surge Current @ $t_p < 1.0\text{s}$	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	$^\circ\text{C}$

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

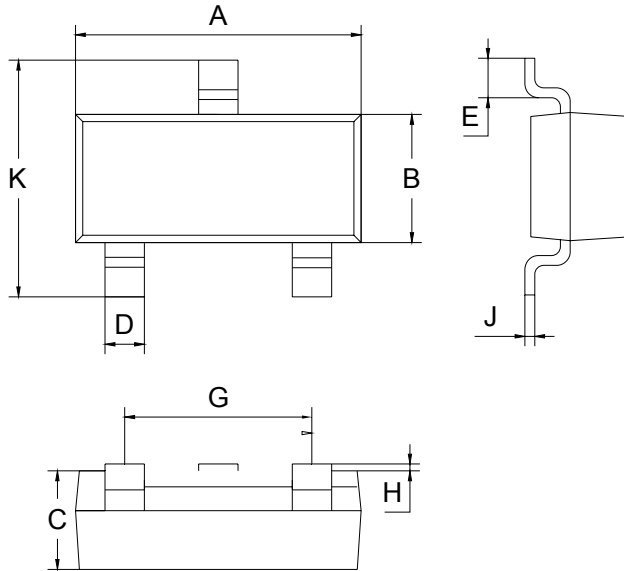
Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	70		V	$I_{(BR)} = 10\mu\text{A}$
Forward Voltage	V_F	-	410 1000	mV	$t_P < 300\mu\text{s}, I_F = 1.0\text{mA}$ $t_P < 300\mu\text{s}, I_F = 15\text{mA}$
Reverse Leakage Current	I_R	-	100	nA	$t_P < 300\mu\text{s}, V_R = 50\text{V}$
Junction Capacitance	C_j	-	2.0	pF	$V_R = 0\text{V}, f = 1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	-	5.0	ns	$I_F = I_R = 10\text{mA}$ to $I_R = 1.0\text{mA}, R_L = 100\Omega$

Typical Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)



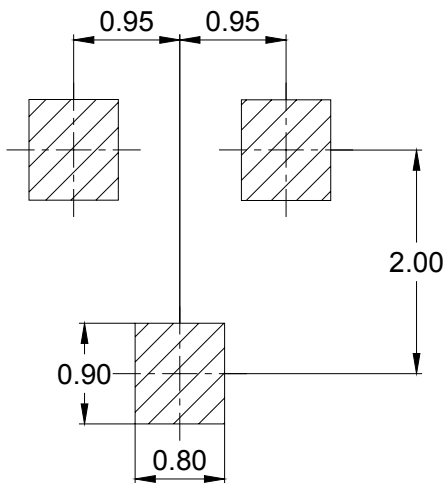
Package Outline Dimensions

SOT-23



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	1.0 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.1 Typical	
K	2.20	2.60
All Dimensions in mm		



Suggested Pad Layout



Unit : mm

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