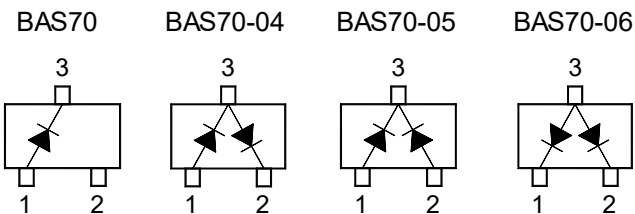


Schottky Barrier Diodes

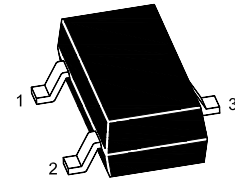
Features

- Low Forward Voltage
- Fast Switching
- AEC-Q101 qualified (Automotive grade with suffix "Q".)
- Exsemi technology

Equivalent Schematic Diagram



SOT-23



Marking Information:

BAS70	B7
BAS70-04	B74
BAS70-05	B75
BAS70-06	B76

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	70	V
Average Rectified Forward Current	$I_{F(AV)}$	70	mA
Non-Repetitive Peak Forward Surge Current at $t = 8.3\text{ms}$	I_{FSM}	100	mA
Power Dissipation	P_D	200	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 55 to + 150	$^\circ\text{C}$

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

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 Current at $V_R = 50\text{ V}$	I_R	-	0.2	μA
Breakdown Voltage at $I_R = 10\text{ }\mu\text{A}$	V_R	70	-	V
Total Capacitance at $V_R = 0\text{ V}$, $f = 1\text{ MHz}$	C_{tot}	-	5	pF
Reverse Recovery Time at $I_F = 10\text{ mA}$, $I_R = 10\text{ mA}$, $I_{RR} = 1\text{ mA}$, $R_L = 100\text{ }\Omega$	t_{rr}	-	5	ns

Electrical Characteristics Curves

Fig. 1 - Typical Instantaneous Forward Characteristics

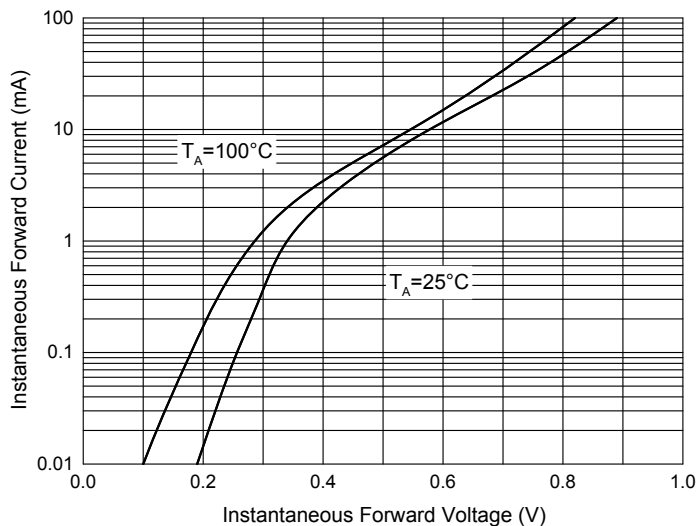


Fig. 2 - Typical Reverse Leakage Characteristics

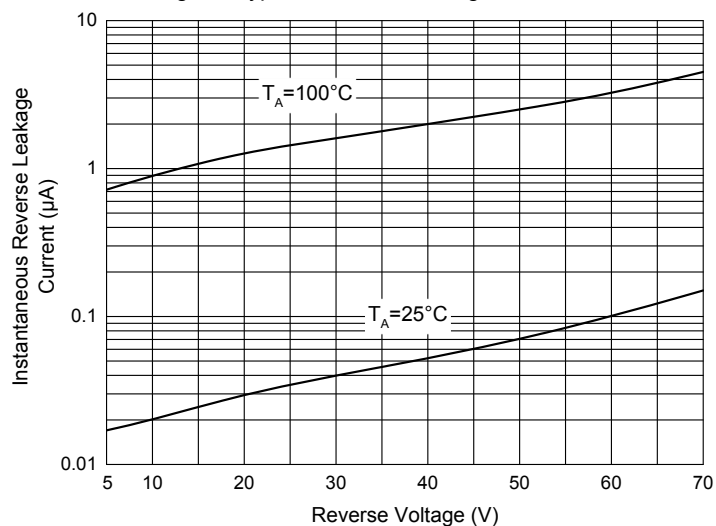
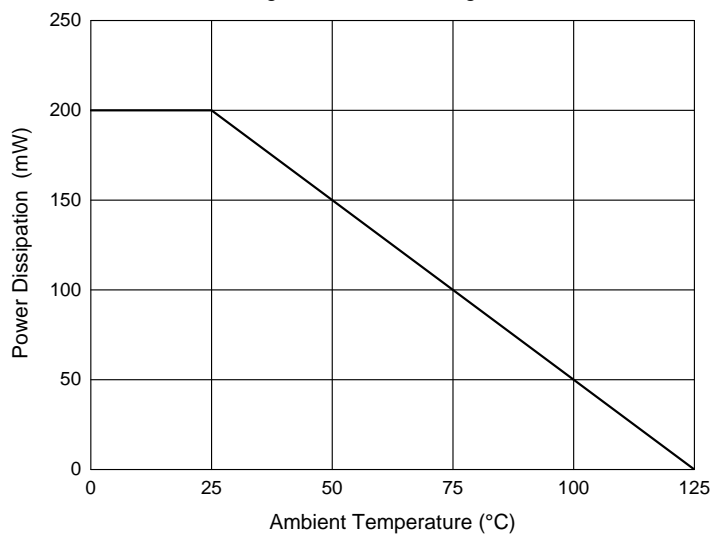


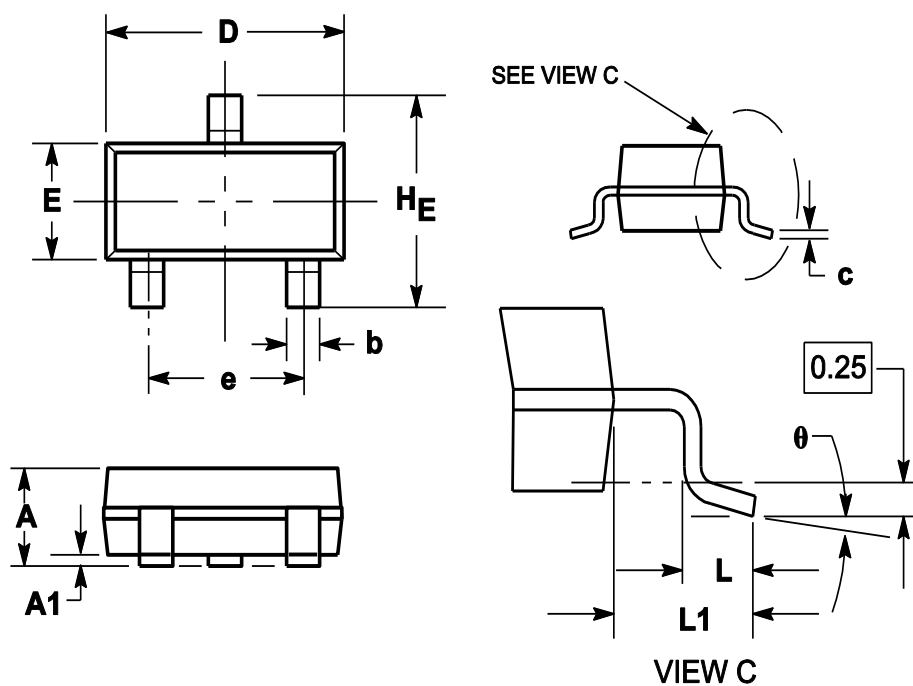
Fig. 3 - Power Derating Curve



Package Outline

SOT-23

Dimensions in mm



Symbol	Dimensions in millimeter		
	Min.	Typ.	Max.
A	0.900	1.025	1.150
A1	0.000	0.050	0.100
b	0.300	0.400	0.500
c	0.080	0.115	0.150
D	2.800	2.900	3.050
E	1.200	1.300	1.400
HE	2.250	2.400	2.550
e	1.800	1.900	2.000
L1	0.550REF		
L	0.300		0.500
θ	0°		8°

Ordering Information

Device	Package	Reel Dimension (inch)	Shipping
BAS70/-04/-05/-06	SOT-23	7	3,000