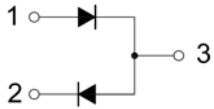


## Fast Switching Speed Diode

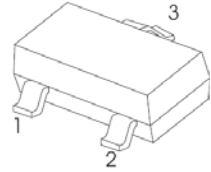
### FEATURES

- For surface mount applications
- Fast reverse recovery time
- Ideal for automated placement
- AEC-Q101 qualified (Automotive grade with suffix "Q.")
- Exsemi technology

### MARKING: A7



### SOT-23



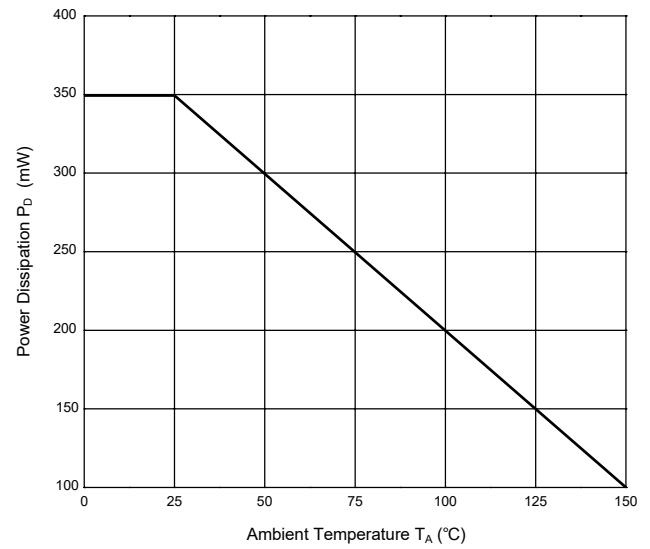
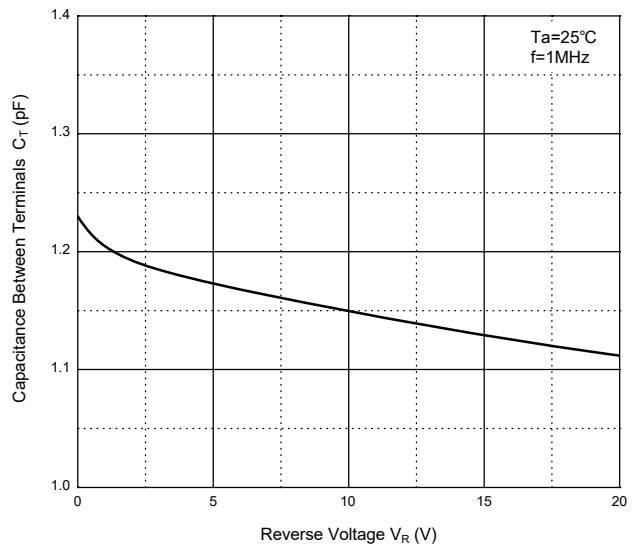
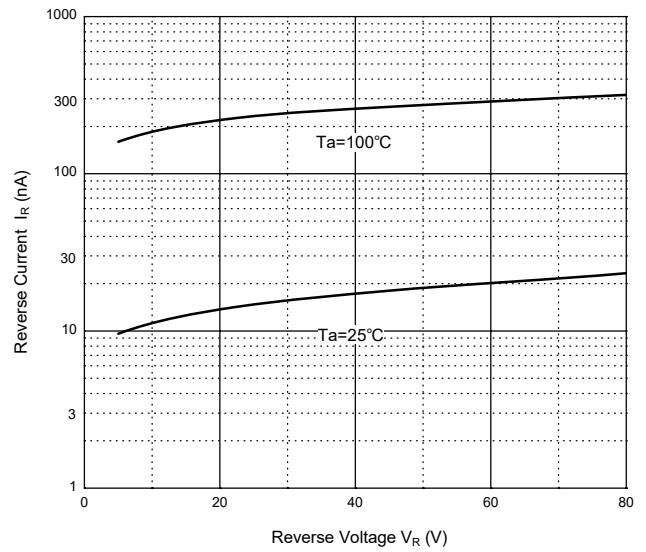
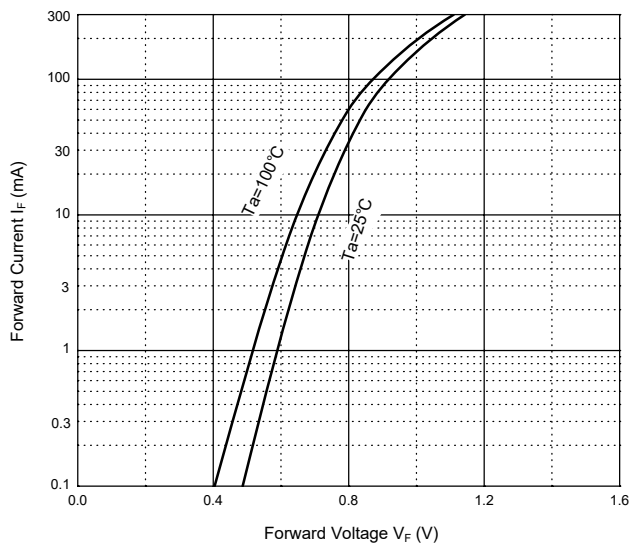
### Maximum Ratings @Ta=25°C

Parameter	Symbol	Limit	Unit
Reverse Voltage	$V_R$	100	V
Forward Current	$I_F$	200	mA
Non-Repetitive Peak Forward Surge Current			
at $t=1$ s		0.5	
at $t=1$ ms	$I_{FSM}$	1	A
at $t=1$ $\mu$ s		4.5	
Power Dissipation	$P_D$	350	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	556	°C/W
Junction Temperature	$T_J$	150	°C
Storage Temperature range	$T_{STG}$	-65~+150	°C

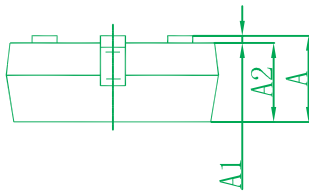
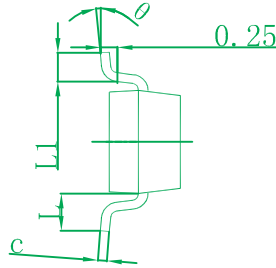
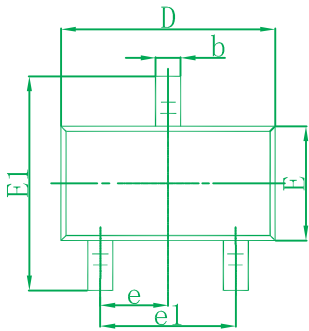
### Electrical Characteristics @Ta=25°C

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	$V_R$	100			V	$I_R=100\mu A$
Forward voltage	$V_{F1}$			0.715	V	$I_F=1mA$
	$V_{F2}$			0.855	V	$I_F=10mA$
	$V_{F3}$			1	V	$I_F=50mA$
	$V_{F4}$			1.25	V	$I_F=150mA$
Revers current	$I_R$			0.03		$V_R=25V$
	$I_R$			1		$V_R=100V$
	$I_R$			30		$V_R=25V, T_J=150^\circ C$
	$I_R$			50	$\mu A$	$V_R=100V, T_J=150^\circ C$
Capacitance between terminals	$C_T$			1.5	pF	$V_R=0, f=1MHz$
Reverse recovery time	$t_{rr}$			6	ns	$I_F = I_R = 10mA,$ $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$

Typical Characteristics

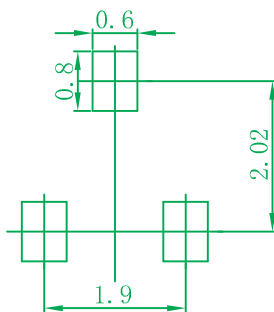


SOT-23 Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.150	0.035	0.045
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.050	0.110	0.120
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.360 REF		0.014 REF	
θ	0°	8°	0°	8°

SOT-23 Suggested Pad Layout



- Note:
1. Controlling dimension: in millimeters.
  2. General tolerance: ± 0.05mm.
  3. The pad layout is for reference purposes only.

Ordering information

Device	Package	Shipping
BAV99-H	SOT-23	3000/Tape&Reel(7inches)