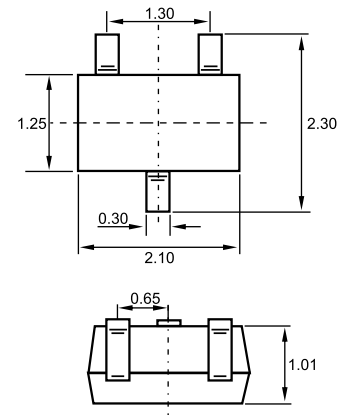


## SOT-323



Dimensions in inches and (millimeters)

## Features

- ✧ Fast switching speed.
- ✧ High conductance.
- ✧ Connected in series.
- ✧ Surface mount package ideally suited for automatic insertion.

## Applications

- ✧ ESD protection, polarity reversal protection, Data line protection, Inductive load protection.

## Ordering Information

Type No.	Marking	Package Code
BAV99RW	F7	SOT-323

## MAXIMUM RATING @ Ta=25°C unless otherwise specified

Parameter	Symbol	Value	Unit
Repetitive peak reverse voltage	$V_{RRM}$	70	V
DC Reverse voltage	$V_R$	70	V
Non-Repetitive forward surge current	$I_{FSM}$	0.5	A
@t=1.0s		1.0	
@t=1.0ms		2.0	
Peak forward surge current	$I_{FM(surge)}$	500	mA
Repetitive peak forward surge current	$I_{FRM}$	450	mA
Forward continuous current	$I_F$	215	mA
Average rectified forward current (averaged over any 20ms period)	$I_{F(AV)}$	715	mA
Power dissipation	$P_d$	200	mW
Thermal resistance junction-to-ambient	$R_{\theta JA}$	625	°C/W
Operating and storage temperature range	$T_j, T_{STG}$	-65-150	°C

## ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)}$	$I_{(BR)}=100\mu A$	70		V
Reverse voltage leakage current	$I_R$	$V_R=70V$		2.5	$\mu A$
Forward voltage	$V_F$	$I_F=1mA$ $I_F=10mA$ $I_F=50mA$ $I_F=150mA$		715 855 1000 1250	mV
Diode capacitance	$C_D$	$V_R=0V$ $f=1MHz$		1.5	pF
Reverse recovery time	$t_{rr}$	$I_F=I_R=10mA$ $R_L=100\Omega$		6.0	nS
Forward recovery voltage	$V_{FR}$	$I_F=10mA, t_r=20ns$		1.75	V

## TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

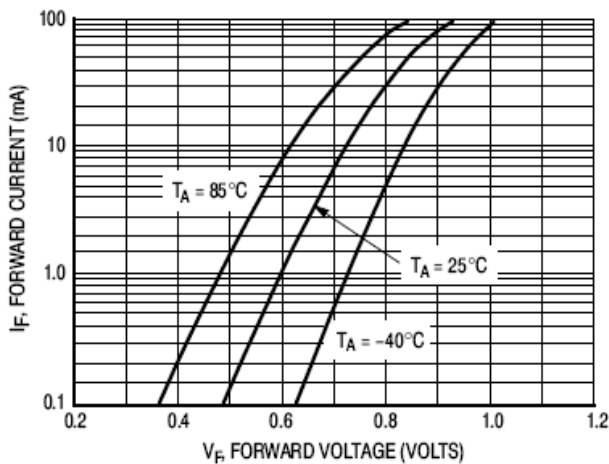


Figure 2. Forward Voltage

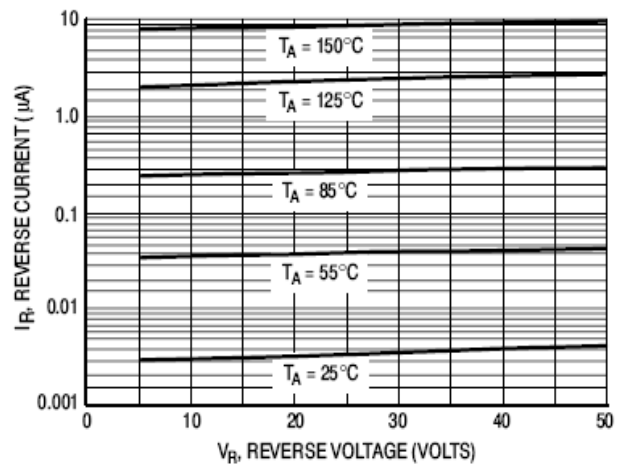


Figure 3. Leakage Current

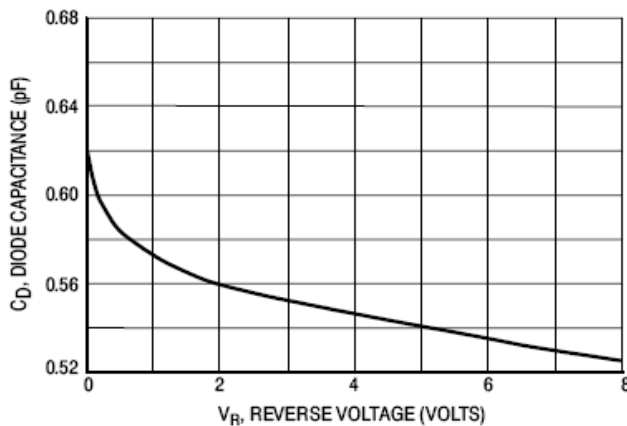


Figure 4. Capacitance