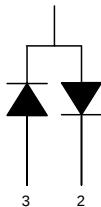


SOT23 SILICON PLANAR HIGH SPEED SWITCHING SERIES DIODE PAIR

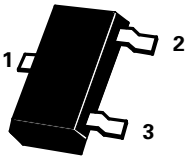
ISSUE 2 - MAY 1995

BAV99

PIN CONFIGURATIONS



PARTMARKING DETAILS
BAV99.....A7



SOT23

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Continuous Reverse Voltage	V_R	70	V
Repetitive Peak Reverse Voltage	V_{RRM}	70	V
Average Rectified Forward Current (over any 20mS Period)	$I_{F(AV)}$	100	mA
Repetitive Peak Forward Current	I_{FRM}	200	mA
Peak Forward Surge Current	$I_{FM(SURGE)}$	500	mA (dc)
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}	330	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ unless otherwise stated).

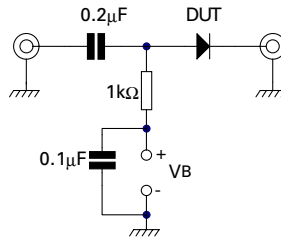
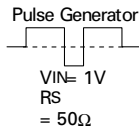
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Forward Voltage	V_F			715 855 1.1 1.3	mV mV V V	$I_F=1mA$ $I_F=10mA$ $I_F=50mA$ $I_F=100mA$
Reverse Current	I_R			30 2.5 50	μA μA μA	$V_R=25V, T_{amb}=150^{\circ}C$ $V_R=70V$ $V_R=70V, T_{amb}=150^{\circ}C$
Diode Capacitance	C_D			1.5	pF	$f=1MHz$
Forward Recovery Voltage	V_{fr}			1.75	V	Switched to $I_F=10mA, t_r=20ns$
Reverse Recovery Time	t_{rr}			6	ns	Switched from $I_F=10mA, V_R=1V$ $R_L=100\Omega, I_R=1mA$

Spice parameter data is available upon request for this device

BAV99

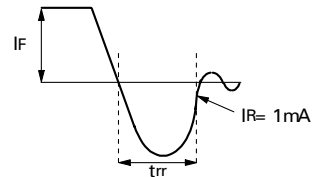
SWITCHING CIRCUIT

Recovery Time Equivalent Test Circuit



Sampling Oscilloscope
 $C < 1.0pF$
 $R_{IN} = 50\Omega$

Pulse rise time $\leq 0.5ns$
Pulse width = 100ns
Oscilloscope rise time $< 0.35ns$
Adjust V_B for $I_F = 10mA$



Output Waveform

† Above switching diagram also applies to device types

- BAL99
- BAR99
- BAW56
- BAV70