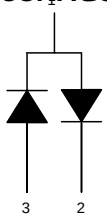
SOT23 SILICON PLANAR HIGH SPEED SWITCHING SERIES DIODE PAIR

ISSUE 2 - MAY 1995

BAV99

PIN CONFIGURATIONS



PARTMARKING DETAILS
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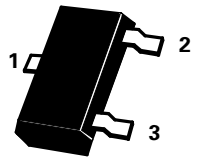


SOT23

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°C	P_{tot}	330	mW
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150	°C

CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated).

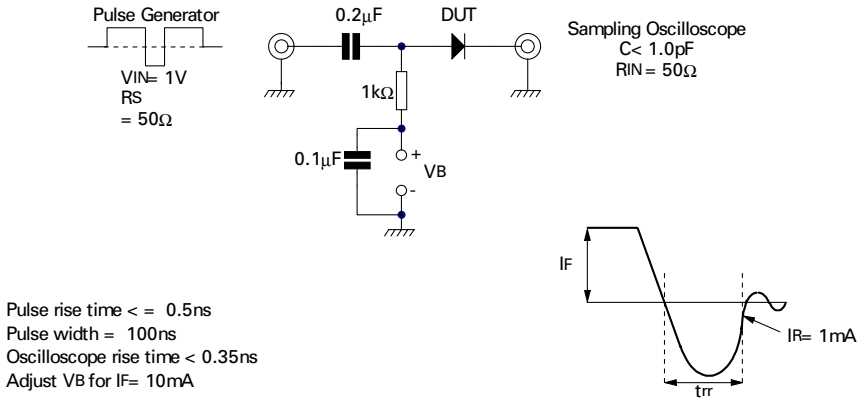
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Forward Voltage	V_F			715 855 1.1 1.3	mV mV V V	I_F=1mA I_F=10mA I_F=50mA I_F=100mA
Reverse Current	I_R			30 2.5 50	µA µA µA	V_R=25V, T_{amb}=150°C V_R=70V V_R=70V, T_{amb}=150°C
Diode Capacitance	C_D			1.5	pF	f=1MHz
Forward Recovery Voltage	V_{fr}			1.75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

Spice parameter data is available upon request for this device

BAV99

SWITCHING CIRCUIT

Recovery Time Equivalent Test Circuit



Pulse rise time < = 0.5ns
Pulse width = 100ns
Oscilloscope rise time < 0.35ns
Adjust VB for IF= 10mA

Output Waveform

† Above switching diagram also applies to device types

- BAL99
- BAR99
- BAW56
- BAV70