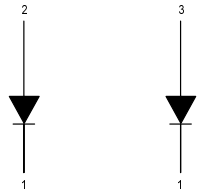
SOT23 HIGH SPEED SWITCHING DIODES

BAL74
BAR74

ISSUE 3 – FEBRUARY 1997

PIN CONFIGURATION



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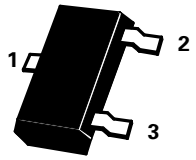
PARTMARKING DETAILS
BAL74 – JC
BAR74 – JB



SOT23

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Continuous Reverse Voltage	V_R	50	V
Average Output Rectified Current (t_{av} = 10ms)	I_o	100	mA
Continuous Forward Current	I_F	150	mA
Peak Forward Current (t = 15ms)	I_{FM}	200	mA
Forward Surge Current (t = 1μs)	I_{FS}	1	A
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150	° C
Power Dissipation at T_{amb} =25°C	P_{tot}	330	mW

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Breakdown Voltage	V_{BR}	51			V	I_R = 5μA
Forward Voltage	V_F			1.0	V	I_F = 100mA
Reverse current	I_R			0.1 100	μA μA	V_R = 50V V_R = 50V, T_{amb} = 125°C
Capacitance	C_o			2.0	pF	V_R = 0
Reverse Recovery Time	t_{rr}			4 2	ns ns	I_F = I_R = 10mA, I_{RR} = 1mA I_F = 10mA, V_R = 6V R_L = 100Ω

Spice parameter data is available upon request for this device

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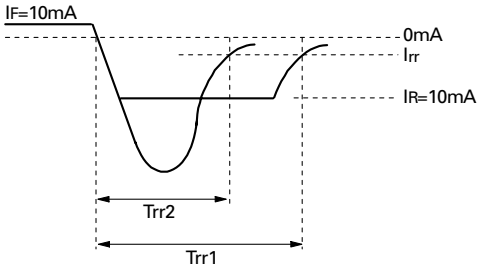
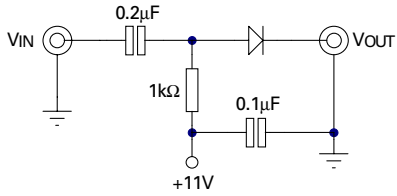
Circuit For Measuring Switching Time



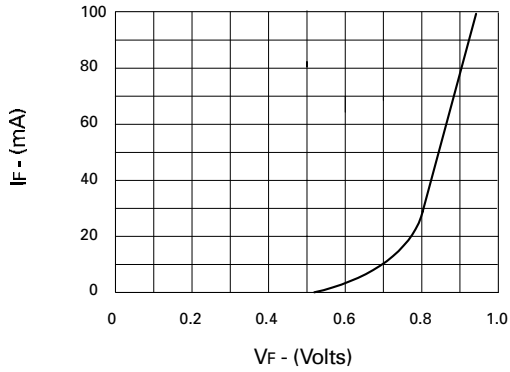


Pulse is supplied by a generator with the following characteristics:

Output impedance = 50Ω
Rise time <= 0.5ns
Pulse width = 100ns

Output is monitored on a sampling oscilloscope with the following characteristics:

Input impedance = 50Ω
Rise time <= 0.6ns



IF v VF