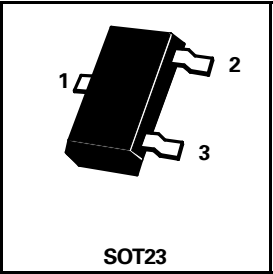
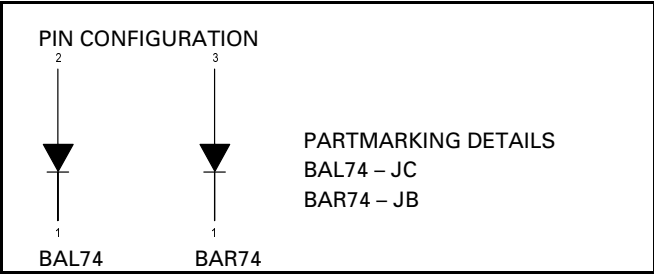


SOT23 HIGH SPEED SWITCHING DIODES

BAL74
BAR74

ISSUE 3 – FEBRUARY 1997



ABSOLUTE MAXIMUM RATINGS.

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

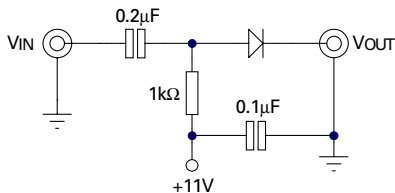
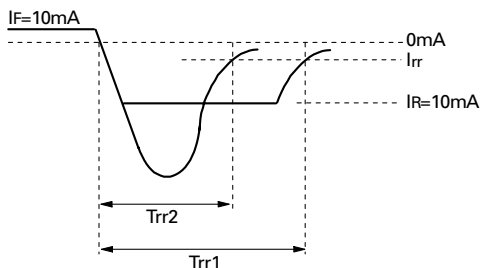
ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ unless otherwise stated).

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

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 $\leq 0.5\text{ns}$
Pulse width = 100ns

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

Input impedance = 50Ω
Rise time $\leq 0.6\text{ns}$

