

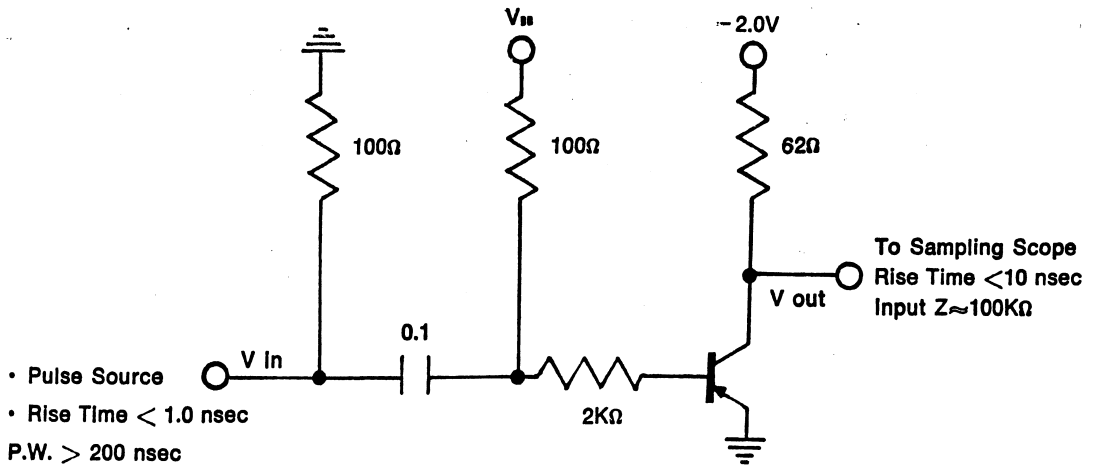


**ELECTRICAL CHARACTERISTICS @ 25°C unless otherwise noted.**

SYMBOL	2N2894			2N3209			UNIT	CONDITIONS
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.		
$V_{cso}$	-12			-20			Vdc	$I_c = 10\mu A$
$BV_{ces}$				-20			Vdc	$I_c = 10\mu A$
$LV_{cso}$	-12			-20			Vdc	$I_c = 10mA$
$BV_{cso}$	-4.0			-4.0			Vdc	$I_E = 100\mu A$
$f_{HF}$	40 30 25 17	75 85 43	150	30 25 15 12	75 87 30 43	120		$I_c = 30mA$ $V_{CE} = -0.5V$ $I_c = 10mA$ $V_{CE} = -0.3V$ $I_c = 100mA$ $V_{CE} = -1.0V$ $I_c = 30mA$ $V_{CE} = -0.5V$ $T_A = -55$
$V_{ce}(sat)$		-0.07 -0.10 -0.25	-0.15 -0.20 -0.50		-0.07 -0.10 -0.28	-0.15 -0.20 -0.60	Vdc	$I_c = 10mA$ $I_B = 1.0mA$ $I_c = 10mA$ $I_B = 3.0mA$ $I_c = 100mA$ $I_B = 10mA$
$V_{be}(sat)$	-0.78 -0.85	-0.92 -1.10 -1.40	-0.98 -1.20 -1.70	-0.78 -0.85	-0.92 -1.10 -1.40	-0.98 -1.20 -1.70	Vdc	$I_c = 10mA$ $I_B = 1.0mA$ $I_c = 30mA$ $I_B = 3.0mA$ $I_c = 100mA$ $I_B = 10mA$
$I_{csp}$		0.05	80		0.05	80	nA	$V_{CE} = -6V$ and $-10V$ respectively
$I_{cso}$		0.025	10		0.025	10	$\mu A$	Same as above $T_A = 125^\circ C$
$C_{ob}$		3.3	8.0		3.0	5.0	pF	$V_{ce} = -5.0V$
$C_{in}$		3.8	6.0		3.8	6.0	pF	$V_{EB} = -0.5V$
$f_{HF}$	40	5.5		4.0	5.5			$I_c = 30mA$ $V_{ce} = -10V$ $f = 100MHz$
$t_r$		23	60		23	60	nsec	$I_c \sim 30mA$ $I_{B1} \sim 1.5mA$
$t_{off}$		34	90		34	90	nsec	$I_c \sim 30mA$ $I_{B1} \sim 1.5mA$ $I_{B2} \sim 1.5mA$

NOTES: 1. Pulsed measurement: width  $\leq 300 \mu sec$ , duty cycle  $\leq 2\%$   
 2. Rating is where collector to emitter voltage is lowest.

$t_r - t_{off}$  TEST CIRCUIT



- Pulse Source
- Rise Time < 1.0 nsec
- P.W. > 200 nsec
- Z in = 50Ω

$t_{on}$	$t_{off}$
$V_{CC} = -2.0V$	$V_{CC} = -2.0V'$
$V_{BB} = 3.0V$	$V_{BB} = -4.0V$
$V_{in} = -7.0V$	$V_{in} = +6.0V$

