

TRANSIENT CHARACTERISTICS

Output Capacitance ($V_{CE} = 4 \text{ Vdc}$, $I_E = 0$, $f = 1 \text{ kHz}$)	8	C_{ob}	—	2.5	pF
Input Capacitance ($V_{BE} = 0.5 \text{ Vdc}$, $I_C = 0$, $f = 100 \text{ kHz}$)	8	C_{ib}	—	2.5	pF
High-Frequency Current Gain ($I_C = 10 \text{ mAdc}$, $V_{CE} = 10 \text{ Vdc}$, $f = 100 \text{ MHz}$)	2N3959 2N3960	$ h_{fe} $	13 16	—	—
Current-Gain - Bandwidth Product ($I_C = 5 \text{ mAdc}$, $V_{CE} = 4 \text{ Vdc}$, $f = 100 \text{ MHz}$) ($I_C = 10 \text{ mAdc}$, $V_{CE} = 10 \text{ Vdc}$, $f = 100 \text{ MHz}$) ($I_C = 30 \text{ mAdc}$, $V_{CE} = 4 \text{ Vdc}$, $f = 100 \text{ MHz}$)	2N3959 2N3960 2N3959 2N3960 2N3959 2N3960	f_T	1000 1300 1300 1600 1000 1200	—	MHz
Collector-Base Time Constant ($I_C = 5 \text{ mAdc}$, $V_{CE} = 4 \text{ Vdc}$) ($I_C = 10 \text{ mAdc}$, $V_{CE} = 10 \text{ Vdc}$) ($I_C = 30 \text{ mAdc}$, $V_{CE} = 4 \text{ Vdc}$)	2N3959 2N3960 2N3959 2N3960 2N3959 2N3960	$r'_b C_c$	— — — — — —	30 50 25 40 30 50	ps

TYPICAL SWITCHING TIMES

		Typical Performance ($v_{out} = 1 \text{ V}$)			
			@ 10 mA	@ 30 mA	
Turn-On Delay Time	7	$t_{on}(\text{delay})$	2.4	2	ns
Rise Time	2N3959 2N3960	t_r	3 3	2.2 1.7	ns ns
Turn-Off Delay Time	7	$t_{off}(\text{delay})$	1.6	1.6	ns
Fall-Time	2N3959 2N3960	t_f	3.3 3.3	2.3 1.9	ns ns