

ELECTRICAL CHARACTERISTICS (con't)

Characteristics	Symbol	Min.	Max.	Unit
ON CHARACTERISTICS ⁽³⁾				
Forward-Current Transfer Ratio $I_C = 10 \mu\text{Adc}$, $V_{CE} = 5.0 \text{ Vdc}$ $I_C = 500 \mu\text{Adc}$, $V_{CE} = 5.0 \text{ Vdc}$ $I_C = 10 \text{ mAdc}$, $V_{CE} = 5.0 \text{ Vdc}$	h_{FE}	100 150	300 600	
Collector-Emitter Saturation Voltage $I_C = 10 \text{ mAdc}$, $I_B = 0.5 \text{ mAdc}$	$V_{CE(sat)}$		1.0	Vdc
Base-Emitter Saturation Voltage $I_C = 10 \text{ mAdc}$, $I_B = 0.5 \text{ mAdc}$	$V_{BE(sat)}$	0.6	1.0	Vdc

DYNAMIC CHARACTERISTICS

Magnitude of Small-Signal Short-Circuit Forward Current Transfer Ratio $I_C = 500 \mu\text{Adc}$, $V_{CE} = 5.0 \text{ Vdc}$, $f = 30 \text{ MHz}$	$ h_{fe} $	1.5	6.0	
Small-Signal Short-Circuit Forward Current Transfer Ratio $I_C = 1.0 \text{ mAdc}$, $V_{CE} = 5.0 \text{ Vdc}$, $f = 1.0 \text{ kHz}$	h_{fe}	150	600	
Small-Signal Short-Circuit Input Impedance $V_{CB} = 5.0 \text{ Vdc}$, $I_E = 1.0 \text{ mAdc}$, $f = 1.0 \text{ kHz}$	h_{ib}	25	32	Ω
Small-Signal Short-Circuit Output Admittance $V_{CB} = 5.0 \text{ Vdc}$, $I_E = 1.0 \text{ mAdc}$, $f = 1.0 \text{ kHz}$	h_{ob}		1.0	$\mu\Omega$
Output Capacitance $V_{CB} = 5.0 \text{ Vdc}$, $I_E = 0$, $100 \text{ kHz} \leq f \leq 1.0 \text{ MHz}$	C_{obo}		8.0	pF
Noise Figure $V_{CE} = 5 \text{ Vdc}$; $I_C = 10 \mu\text{Adc}$; $R_g = 10\text{k}\Omega$ Test 1: $f = 100 \text{ Hz}$ Test 2: $f = 1.0 \text{ kHz}$ Test 3: $f = 10 \text{ kHz}$	NF		5 3 3	dB

(3) Pulse Test: Pulse Width = 300 μs , Duty Cycle $\leq 2.0\%$.