

ELECTRICAL CHARACTERISTICS (con't)

Characteristics	Symbol	Min.	Max.	Unit
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DC CHARACTERISTICS

Forward-Current Transfer Ratio $I_C = 0.1 \text{ mA dc}, V_{CE} = 10 \text{ V dc}$ $I_C = 1.0 \text{ mA dc}, V_{CE} = 10 \text{ V dc}$ $I_C = 10 \text{ mA dc}, V_{CE} = 10 \text{ V dc}$ $I_C = 150 \text{ mA dc}, V_{CE} = 10 \text{ V dc}$ $I_C = 500 \text{ mA dc}, V_{CE} = 10 \text{ V dc}$	h_{FE}	75 100 100 100 50	450 300	
Collector-Emitter Saturation Voltage $I_C = 150 \text{ mA dc}, I_B = 15 \text{ mA dc}$ $I_C = 500 \text{ mA dc}, I_B = 50 \text{ mA dc}$	$V_{CE(sat)}$		0.4 1.6	Vdc
Base-Emitter Voltage $I_C = 150 \text{ mA dc}, I_B = 15 \text{ mA dc}$ $I_C = 500 \text{ mA dc}, I_B = 50 \text{ mA dc}$	$V_{BE(sat)}$		1.3 2.6	Vdc

DYNAMIC CHARACTERISTICS

Magnitude of Small-Signal Short-Circuit Forward-Current Transfer Ratio $I_C = 50 \text{ mA dc}, V_{CE} = 20 \text{ V dc}, f = 100 \text{ MHz}$	$ h_{fe} $	2.0	8.0	
Small-Signal Short-Circuit Forward Current Transfer Ratio $I_C = 1.0 \text{ mA dc}, V_{CE} = 10 \text{ V dc}, f = 1.0 \text{ kHz}$	h_{fe}	100		
Output Capacitance $V_{CB} = 10 \text{ V dc}, I_E = 0, 100 \text{ kHz} \leq f \leq 1.0 \text{ MHz}$	C_{obo}		8.0	pF
Input Capacitance $V_{EB} = 2.0 \text{ V dc}, I_C = 0, 100 \text{ kHz} \leq f \leq 1.0 \text{ MHz}$	C_{ibo}		30	pF