

ELECTRICAL CHARACTERISTICS (con't)

Characteristics	Symbol	Min.	Max.	Unit
-----------------	--------	------	------	------

ON CHARACTERISTICS

Forward-Current Transfer Ratio $I_C = 150 \text{ mAdc}, V_{CE} = 1 \text{ Vdc}$ $I_C = 100 \text{ } \mu\text{Adc}, V_{CE} = 10 \text{ Vdc}$ $I_C = 1.0 \text{ mAdc}, V_{CE} = 10 \text{ Vdc}$ $I_C = 10 \text{ mAdc}, V_{CE} = 10 \text{ Vdc}$ $I_C = 150 \text{ mAdc}, V_{CE} = 10 \text{ Vdc}$ $I_C = 300 \text{ mAdc}, V_{CE} = 10 \text{ Vdc}$	h_{FE}	50 35 50 75 100 35	300	
Collector-Emitter Saturation Voltage $I_C = 150 \text{ mAdc}, I_B = 15 \text{ mAdc}$	$V_{CE(sat)}$		0.40	Vdc
Base-Emitter Saturation Voltage $I_C = 150 \text{ mAdc}, I_B = 15 \text{ mAdc}$	$V_{BE(sat)}$	0.80	1.25	Vdc

DYNAMIC CHARACTERISTICS

Forward Current Transfer Ratio $I_C = 1.0 \text{ mAdc}, V_{CE} = 10 \text{ Vdc}, f = 1.0 \text{ kHz}$	h_{fe}	60	300	
Forward Current Transfer Ratio, Magnitude $I_C = 20 \text{ mAdc}, V_{CE} = 10 \text{ Vdc}, f = 100 \text{ MHz}$	$ h_{fe} $	2.0	10	
Small-Signal Common Emitter Input Impedance $I_C = 1.0 \text{ mAdc}, V_{CE} = 10 \text{ Vdc}, f = 1.0 \text{ kHz}$	h_{ie}	1.5	9.0	$k\Omega$
Small-Signal Common Emitter Output Admittance $I_C = 1.0 \text{ mAdc}, V_{CE} = 10 \text{ Vdc}, f = 1.0 \text{ kHz}$	h_{oe}		50	μhmo
Output Capacitance $V_{CB} = 10 \text{ Vdc}, I_E = 0, 100 \text{ kHz} \leq f \leq 1.0 \text{ MHz}$	C_{obo}		8.0	pF
Noise Figure $I_C = 100 \text{ } \mu\text{Adc}, V_{CE} = 10 \text{ Vdc}, f = 1.0 \text{ kHz}, R_G = 1.0 \text{ k}\Omega$	NF		8.0	dB

SWITCHING CHARACTERISTICS

Turn-On Time (See Figure 4 of MIL-PRF-19500/421)	t_{on}		45	ηs
Turn-Off Time (See Figure 5 of MIL-PRF-19500/421)	t_{off}		300	ηs
Pulse Response (See Figure 6 of MIL-PRF-19500/421)	$t_{on} + t_{off}$		18	ηs
Collector-Emitter Non-Latching Voltage (See Figure 7 of MIL-PRF-19500/421)	V_{CEO}	40		Vdc