

ELECTRICAL CHARACTERISTICS ($T_{\text{case}} = 25^{\circ}\text{C}$ unless otherwise stated)

Parameter		Test Conditions	Min.	Typ.	Max.	Unit
I_{CBO}	Collector Cutoff Current	$V_{\text{CB}}=15\text{V}$ $I_{\text{E}}=0$			10	nA
		$T_{\text{a}}=150^{\circ}\text{C}$			1	μA
$V_{(\text{BR})\text{CBO}}$	Collector – Base Breakdown Voltage	$I_{\text{C}}=1\mu\text{A}$ $I_{\text{E}}=0$	30			V
$V_{\text{CEO(sus)}}$	Collector – Emitter Sustaining Voltage	$I_{\text{C}}=3\text{mA}$ $I_{\text{B}}=0$	15			
$V_{(\text{BR})\text{EBO}}$	Emitter – Base Breakdown Voltage	$I_{\text{E}}=10\mu\text{A}$ $I_{\text{C}}=0$	3			
$V_{\text{CE(sat)}}$	Collector – Emitter Saturation Voltage	$I_{\text{C}}=10\text{mA}$ $I_{\text{B}}=1\text{mA}$			0.4	
$V_{\text{BE(sat)}}$	Base – Emitter Saturation Voltage	$I_{\text{C}}=10\text{mA}$ $I_{\text{B}}=1\text{mA}$			1.0	
h_{FE}	DC Current Gain	$I_{\text{C}}=3\text{mA}$ $V_{\text{CE}}=1\text{V}$	20	50		—
f_{T}	Transition Frequency	$I_{\text{C}}=4\text{mA}$ $V_{\text{CE}}=10\text{V}$ $f=100\text{MHz}$	600	900		MHz
C_{EBO}	Emitter – Base Capacitance	$I_{\text{C}}=0$ $V_{\text{EB}}=0.5\text{V}$ $f=1\text{MHz}$			2	pF
C_{CBO}	Collector – Base Capacitance	$I_{\text{E}}=0$ $V_{\text{CE}}=0\text{V}$		1.8	3	
		$f=1\text{MHz}$ $V_{\text{CE}}=10\text{V}$		1	1.7	
NF	Noise Figure	$I_{\text{E}}=1\text{mA}$ $V_{\text{CE}}=6\text{V}$ $R_{\text{g}}=400$ $f=60\text{MHz}$			6	dB
G_{pe}	Power Gain	$I_{\text{C}}=6\text{mA}$ $V_{\text{CE}}=12\text{V}$ $R_{\text{g}}=50$ $f=200\text{MHz}$	15	21		

* Pulsed: Pulse Duration = 300 μs , duty cycle = 1.5%