

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CER} Collector Cut-off Current	$V_{CE} = -65\text{V}$			- 10	μA
	$R_{BE} = 100\Omega$ $T_C = 150^\circ\text{C}$			- 1.0	mA
I_{CEX} Collector Cut-off Current	$V_{CE} = -75\text{V}$ $V_{BE} = -1.5\text{V}$			- 10	μA
	$R_{BE} = 100\Omega$ $T_C = 150^\circ\text{C}$			- 1.0	mA
I_{CEO} Collector Cut-off Current	$V_{CE} = -50\text{V}$ $I_B = 0$			- 100	μA
I_{EBO} Emitter Cut-off Current	$V_{BE} = -5\text{V}$ $I_C = 0$			- 10	μA
h_{FE}^* DC Current Gain	$V_{CE} = -2\text{V}$ $I_C = -1.0\text{A}$	20		100	—
	$V_{CE} = -2\text{V}$ $I_C = -3.2\text{A}$	4			
$V_{CEO(BR)}^*$ Collector – Emitter Breakdown Voltage	$I_C = -10\text{mA}$ $I_B = 0$	- 65			V
$V_{CER(BR)}^*$ Collector – Emitter Breakdown Voltage	$I_C = -10\text{mA}$ $R_{BE} = 100\Omega$	- 80			
V_{BE} Base – Emitter Voltage	$V_{CE} = -2\text{V}$ $I_C = -1.0\text{A}$			- 1.5	V
$V_{CE(sat)}$ Collector – Emitter Saturation Voltage	$I_C = -1.0\text{A}$ $I_B = -0.1\text{A}$			- 0.5	
f_T Transition Frequency	$V_{CE} = -2\text{V}$ $I_C = -0.1\text{A}$ $f = 4\text{MHz}$	8		60	MHz
h_{fe} Small Signal Common – Emitter Current Gain	$V_{CE} = -2\text{V}$ $I_C = -0.1\text{mA}$ $f = 1.0\text{kHz}$	25			—
t_{ON} Saturated Switching Time	$V_{CC} = -30\text{V}$ $I_{B1} = I_{B2}$			0.5	μs
t_{OFF} Turn-off Time	$I_C = -1.0\text{A}$ $I_B = -0.1\text{A}$			2.5	
$R_{\theta JC}$ Thermal Resistance Junction – Case				17.5	$^\circ\text{C/W}$
$R_{\theta JA}$ Thermal Resistance Junction – Ambient				175	

NOTES

1. * Pulse Test: $t_p = 300\mu\text{s}$, $\delta = 1.8\%$.