Electrical Characteristics (at Ta=25 °C unless otherwise specified)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNITS
Collector Cut Off Current	I_{CBO}	V_{CB} = 30V, I_E = 0			15	nA
		V_{CB} = 30V, I_E = 0, Tj = 150°C			4	uA
Base Emitter On Voltage	$V_{BE(on)}$*	I_C = 2mA, V_{CE} = 5V	0.58		0.7	V
		I_C = 10mA, V_{CE} = 5V			0.77	
Collector Emitter Saturation Voltage	$V_{CE(Sat)}$	I_C = 10mA, I_B = 0.5mA			0.25	V
		I_C = 100mA, I_B = 5mA			0.60	
Base Emitter Saturation Voltage	$V_{BE(Sat)}$***	I_C = 10mA, I_B = 0.5mA		0.7		V
		I_C = 100mA, I_B = 5mA		0.9		
DC Current Gain	h_{FE}	I_C = 10uA, V_{CE} = 5V				
		BC846A/BC847A/BC848A		90		
		BC846B/BC847B/BC848B		150		
		BC847C/BC848C		270		
		I_C = 2mA, V_{CE} = 5V				
		BC846	110		450	
		BC847/BC848	110		800	
		BC846A/BC847A/BC848A	110		220	
		BC846B/BC847B/BC848B	200		450	
		BC847C/BC848C	420		800	
Collector Capacitance	C_C	I_E = ie = 0, V_{CB} = 10V, f = 1MH$_Z$		2.5		pF
Transition Frequency	f_T	I_C = 10mA, V_{CB} = 5V, f = 100MH$_Z$	100			MH$_Z$
Small Signal Current Gain	$\lvert h_{fe} \rvert$	I_C = 2mA, V_{CE} = 5V, f= 1kH$_Z$				
		BC856	125		500	
		BC857/BC858	125		900	
		BC846A/BC847A/BC848A	125		260	
		BC846B/BC847B/BC848B	240		500	
		BC847C/BC848C	450		900	
Noise Figure	NF	I_C = 0.2mA, V_{CE} = 5V			10	dB
		R_S= 2k ohm, f = 1KH$_Z$, B= 200H$_Z$				

*$V_{BE\ (on)}$ decreases by about 2mV/K with increase temperature.

***$V_{BE\ (Sat)}$ decreases by about 1.7mV/K with increase temperature.