

RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

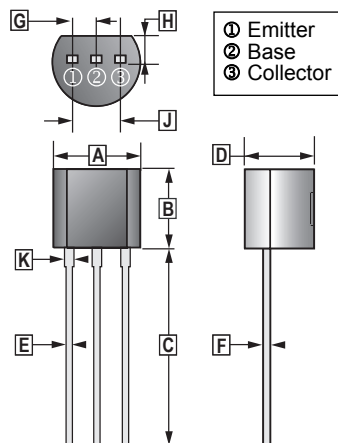
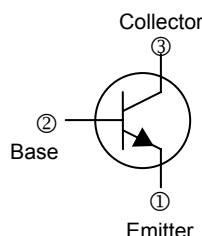
FEATURE

Complementary PNP type available 2N2907A

PACKAGING INFORMATION

Weight: 0.2056 g

TO-92



REF.	Millimeter	
	Min.	Max.
A	4.40	4.70
B	4.30	4.70
C	12.70	-
D	3.30	3.81
E	0.36	0.56
F	0.36	0.51
G	1.27 TYP.	
H	1.10	-
J	2.42	2.66
K	0.36	0.76

ABSOLUTE MAXIMUM RATINGS (at $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CBO}	75	V
Collector to Emitter Voltage	V_{CEO}	40	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current – Continuous	I_C	600	mA
Collector Power Dissipation	P_C	625	mW
Junction, Storage Temperature	T_J, T_{STG}	+150, -55 ~ +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (at $T_A = 25^\circ\text{C}$ unless otherwise specified)

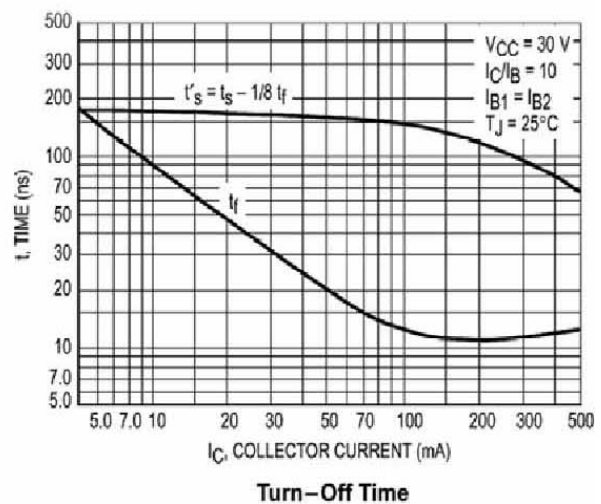
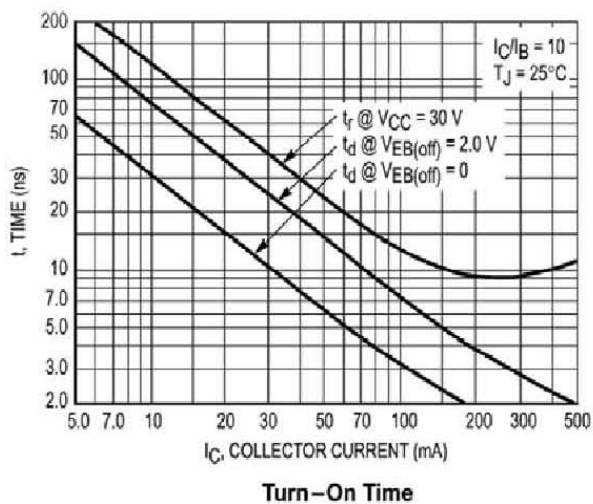
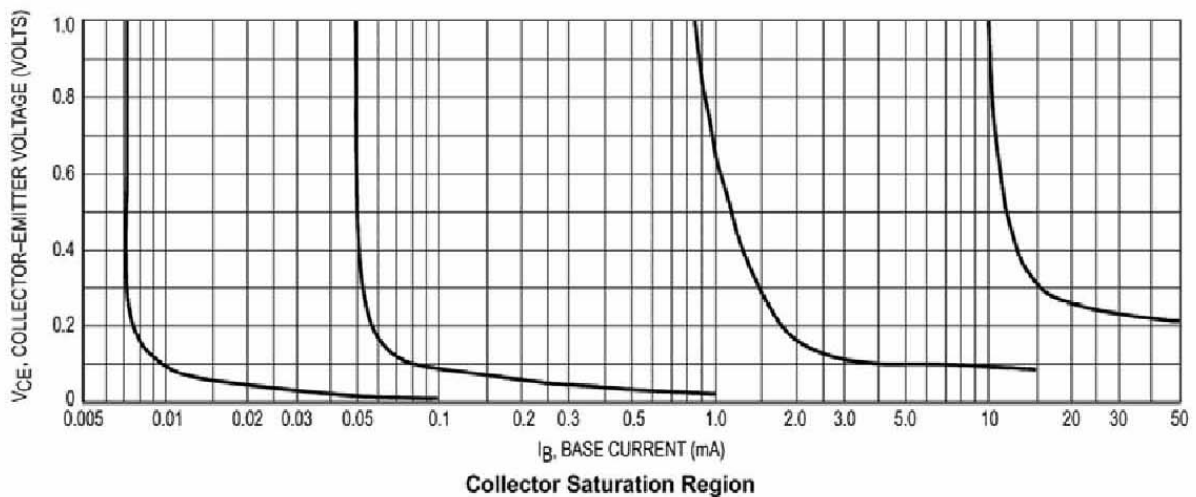
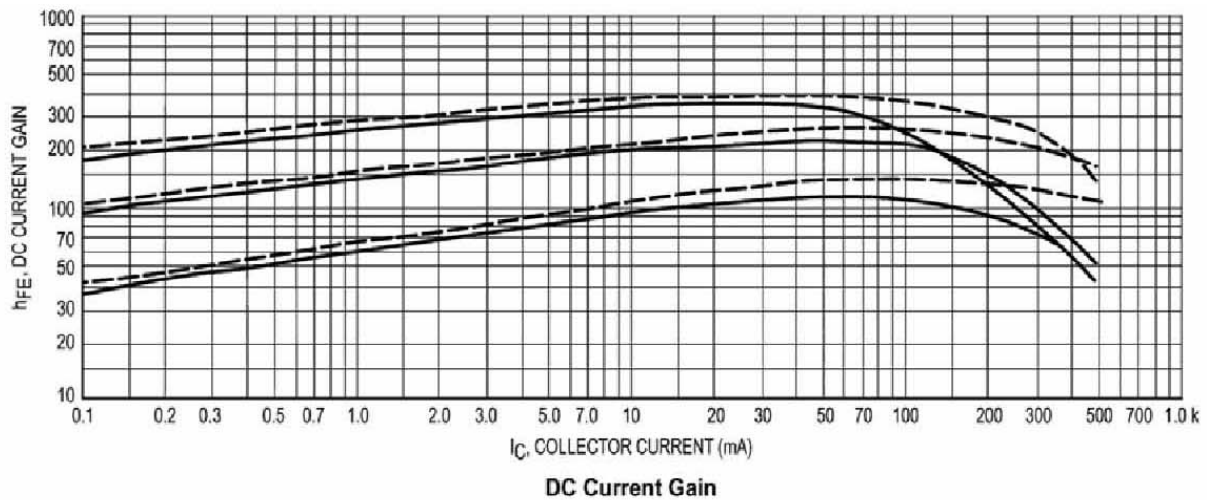
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	75	-	-	V	$I_C = 10\mu\text{A}, I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	40	-	-	V	$I_C = 10\text{mA}, I_B = 0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	6	-	-	V	$I_E = 10\mu\text{A}, I_C = 0$
Collector Cut-off Current	I_{CBO}	-	-	10	nA	$V_{CB} = 60\text{V}, I_E = 0$
Collector Cut-off Current	I_{CEX}	-	-	10	nA	$V_{CE} = 60\text{V}, V_{EB(Off)} = 3\text{V}$
Emitter Cut-off Current	I_{EBO}	-	-	100	nA	$V_{EB} = 3\text{V}, I_C = 0$
DC Current Gain	$h_{FE(1)}$	100	-	300		$V_{CE} = 10\text{V}, I_C = 150\text{mA}$
	$h_{FE(2)}$	40	-	-		$V_{CE} = 10\text{V}, I_C = 0.1\text{mA}$
	$h_{FE(3)*}$	42	-	-		$V_{CE} = 10\text{V}, I_C = 500\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)(1)*}$	-	-	0.6	V	$I_C = 500\text{mA}, I_B = 50\text{mA}$
	$V_{CE(sat)(2)*}$	-	-	0.3	V	$I_C = 150\text{mA}, I_B = 15\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(sat)*}$	-	-	1.2	V	$I_C = 500\text{mA}, I_B = 50\text{mA}$
Delay Time	t_d	-	-	10	nS	$V_{CC} = 30\text{V}, V_{EB(Off)} = -0.5\text{V}, I_C = 150\text{mA}, I_{B1} = 15\text{mA}$
Rise Time	t_r	-	-	25	nS	
Storage Time	t_s	-	-	225	nS	$V_{CC} = 30\text{V}, I_C = 150\text{mA}, I_{B1} = I_{B2} = 15\text{mA}$
Fall Time	t_f	-	-	60	nS	
Transition Frequency	f_T	300	-	-	MHz	$V_{CE} = 20\text{V}, I_C = 20\text{mA}, f = 100\text{MHz}$

* Pulse Test

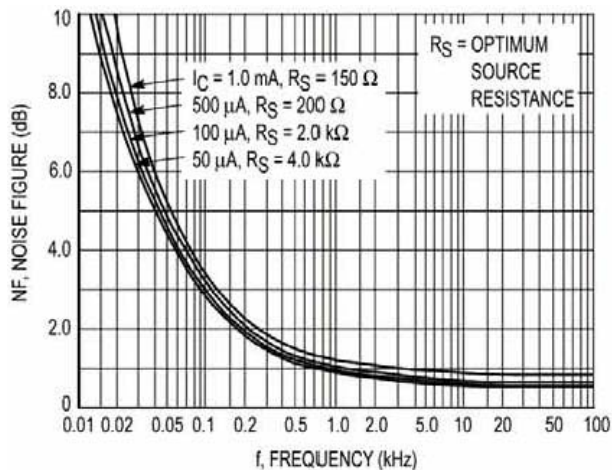
CLASSIFICATION OF $h_{FE(1)}$

Rank	L	H
Range	100 - 200	200 - 300

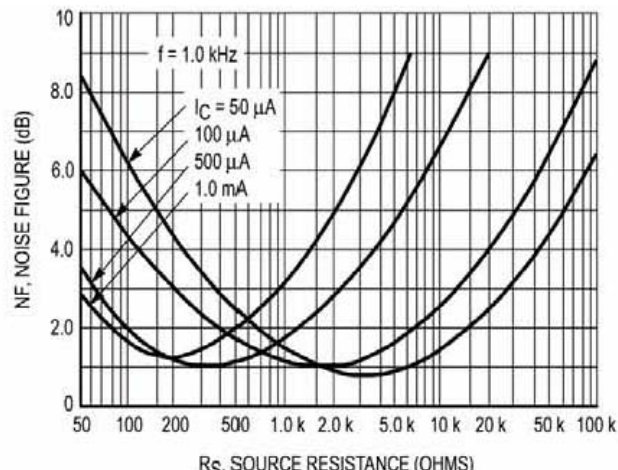
CHARACTERISTIC CURVES



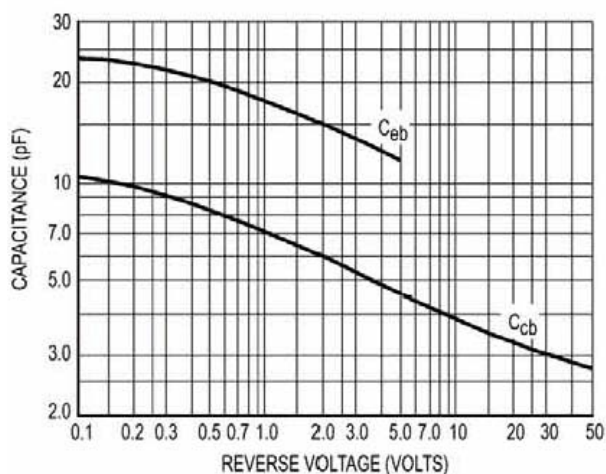
CHARACTERISTIC CURVES



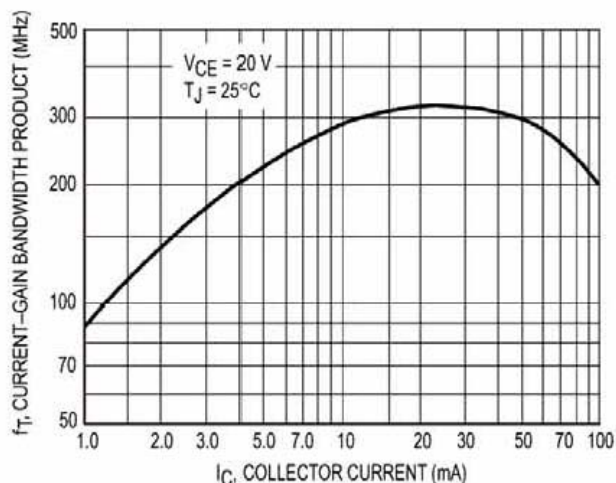
Frequency Effects



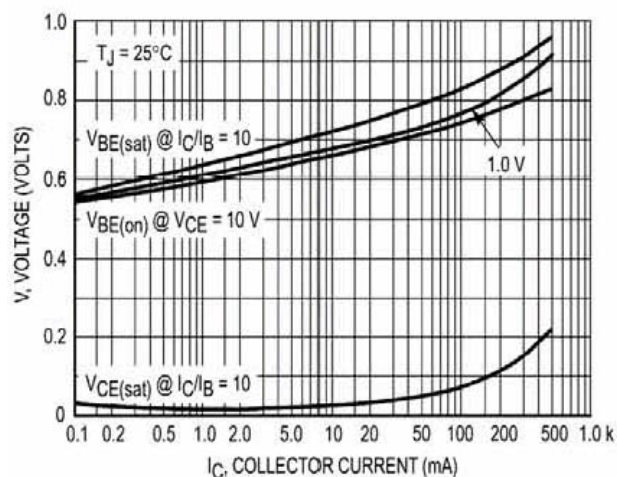
Source Resistance Effects



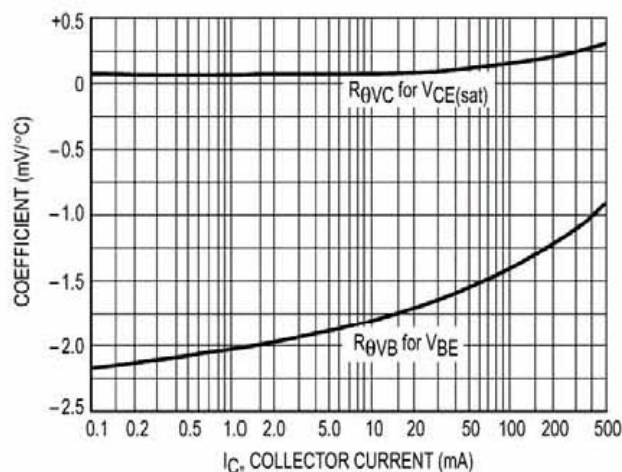
Capacitances



Current-Gain Bandwidth Product



"On" Voltages



Temperature Coefficients