

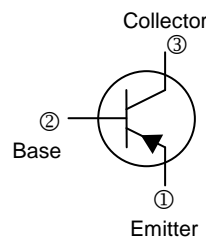
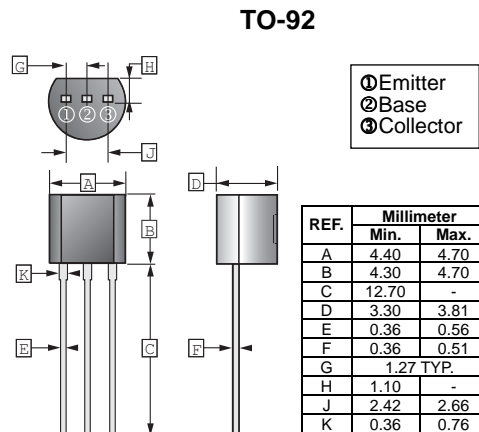
RoHS Compliant Product
A suffix of "-C" specifies halogen and lead free

FEATURES

- Power Dissipation P_{CM} : 625mW ($T_a=25^\circ\text{C}$)
- Collector Current I_{CM} : -200mA
- Collector – Base Voltage $V_{(BR)CBO}$: -40V

CLASSIFICATION OF $h_{FE(1)}$

Product-Rank	2N3906-O	2N3906-Y	2N3906-G
Range	100~200	200~300	300~400



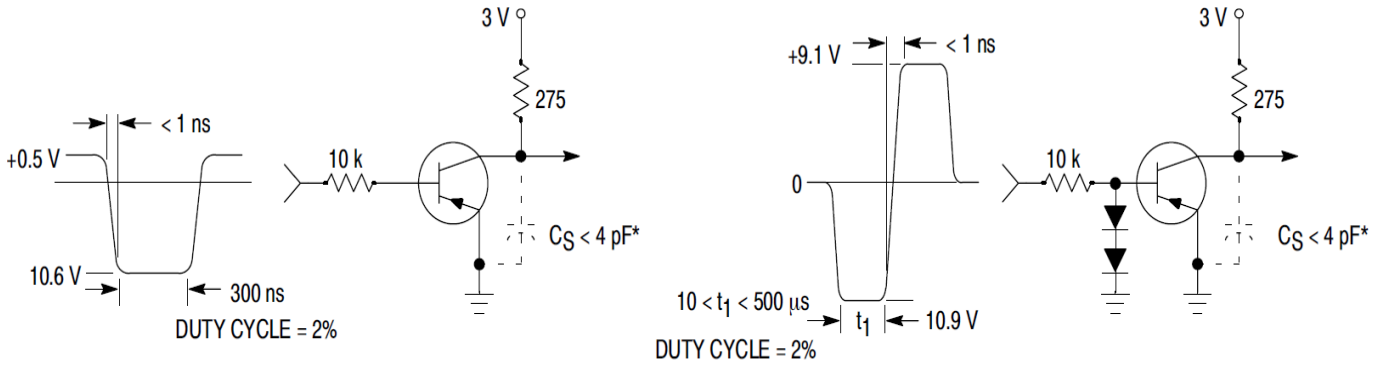
ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector - Base Voltage	V_{CBO}	-40	V
Collector - Emitter Voltage	V_{CEO}	-40	V
Emitter - Base Voltage	V_{EBO}	-5	V
Collector Current -Continuous	I_C	-0.2	A
Collector Power Dissipation	P_C	625	mW
Junction, Storage Temperature	T_J, T_{STG}	+150, -55 ~ +150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-40	-	-	V	$I_C=-10\mu\text{A}, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-40	-	-	V	$I_C=-1\text{mA}, I_B=0$
Emitter - Base Breakdown Voltage	$V_{(BR)EBO}$	-5	-	-	V	$I_E=-100\mu\text{A}, I_C=0$
Collector Cut-Off Current	I_{CBO}	-	-	-0.1	μA	$V_{CB}=-40\text{V}, I_E=0$
Collector Cut-Off Current	I_{CEX}	-	-	-50	nA	$V_{CE}=-30\text{V}, V_{BE(off)}=-3\text{V}$
Emitter Cut-Off Current	I_{EBO}	-	-	-0.1	μA	$V_{EB}=-5\text{V}, I_C=0$
DC Current Gain	$h_{FE(1)}$	100	-	400		$V_{CE}=-1\text{V}, I_C=-10\text{mA}$
	$h_{FE(2)}$	60	-	-		$V_{CE}=-1\text{V}, I_C=-50\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-0.4	V	$I_C=-50\text{mA}, I_B=-5\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	-	-	-0.95	V	$I_C=-50\text{mA}, I_B=-5\text{mA}$
Transition Frequency	f_T	250	-	-	MHZ	$V_{CE}=-20\text{V}, I_C=-10\text{mA}, f=100\text{MHz}$

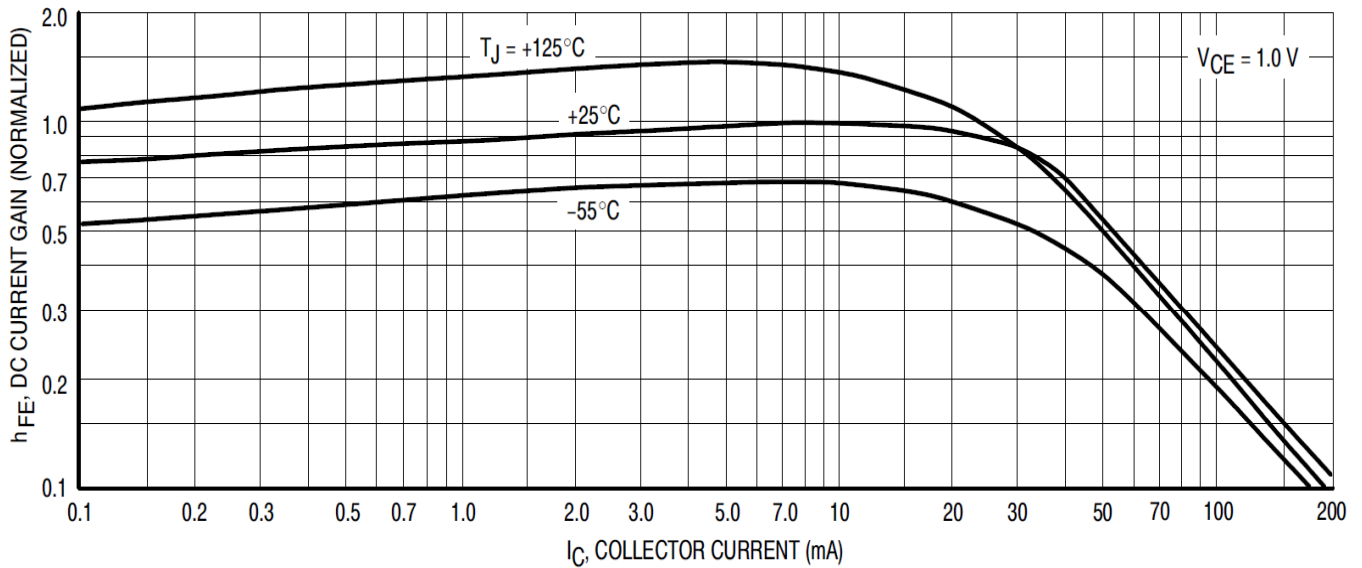
CHARACTERISTIC CURVES



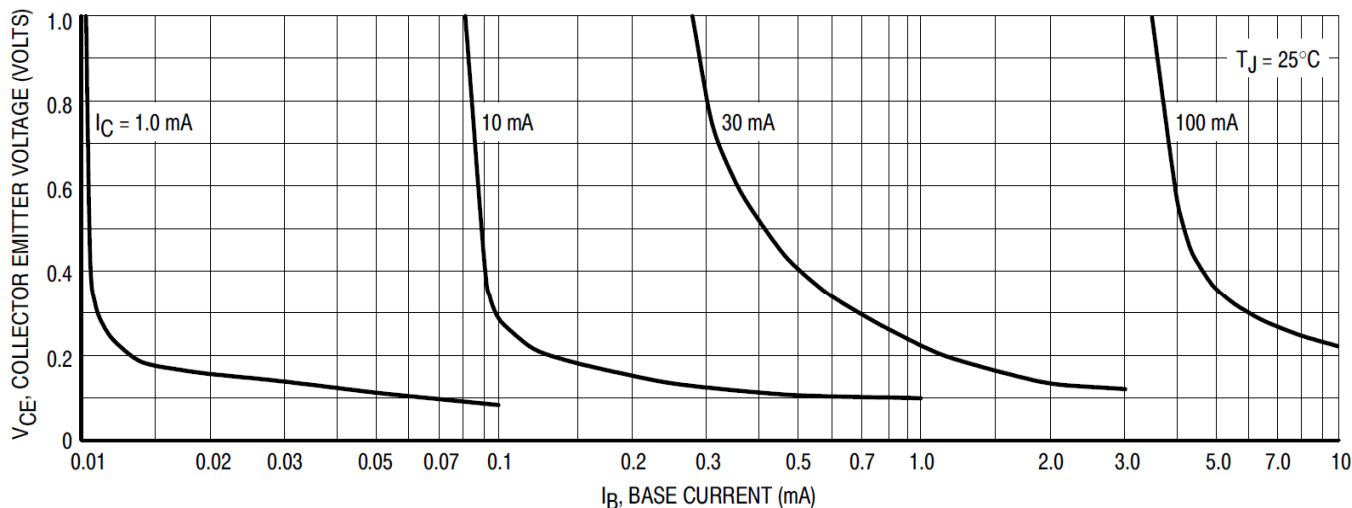
* Total shunt capacitance of test jig and connectors

**Delay and Rise Time
Equivalent Test Circuit**

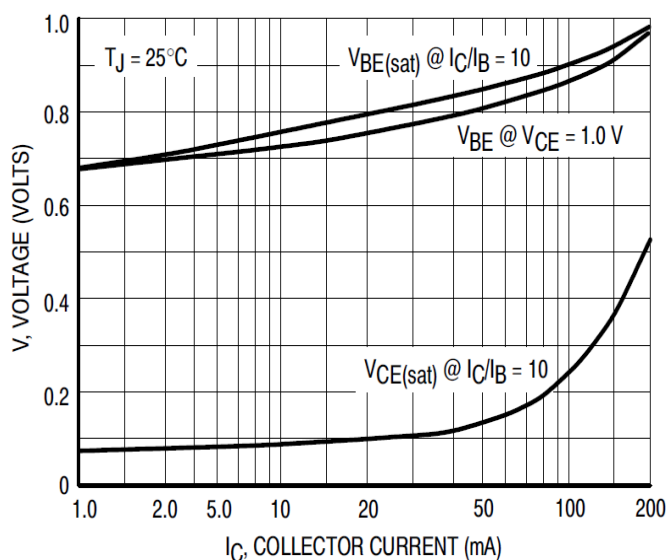
**Storage and Fall Time
Equivalent Test Circuit**



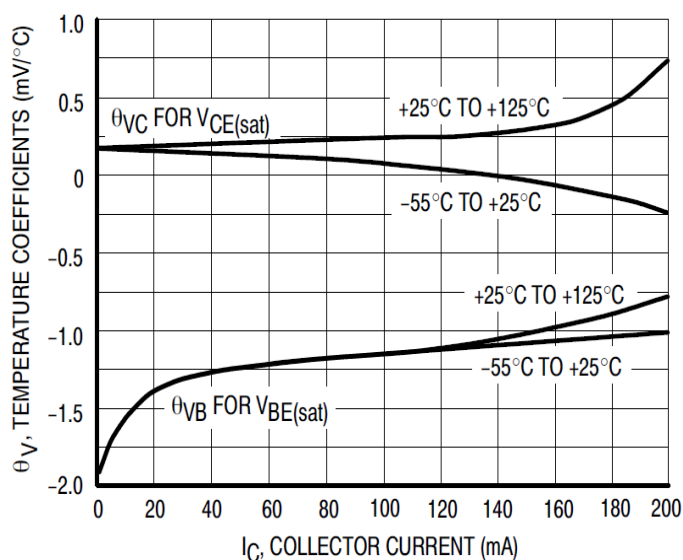
DC Current Gain



Collector Saturation Region



"ON" Voltages



Temperature Coefficients