Elektronische Bauelemente

2N3906

-0.2A , -40V

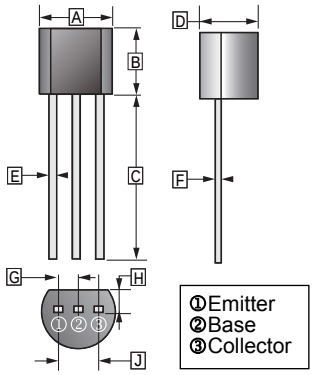
PNP General Purpose Transistor

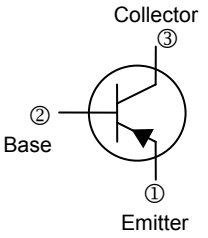
RoHS Compliant Product
A suffix of "-C" specifies halogen and lead free

FEATURES

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

TO-92





REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.40	4.70	F	0.30	0.51
B	4.30	4.70	G	1.27 TYP.	
C	12.70	-	H	1.10	1.40
D	3.30	3.81	J	2.42	2.66
E	0.36	0.56	K	0.36	0.76

CLASSIFICATION OF h_{FE}

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

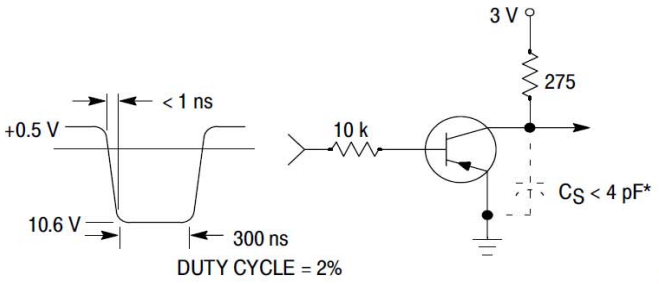
ABSOLUTE MAXIMUM RATINGS (T_A= 25°C unless otherwise specified)

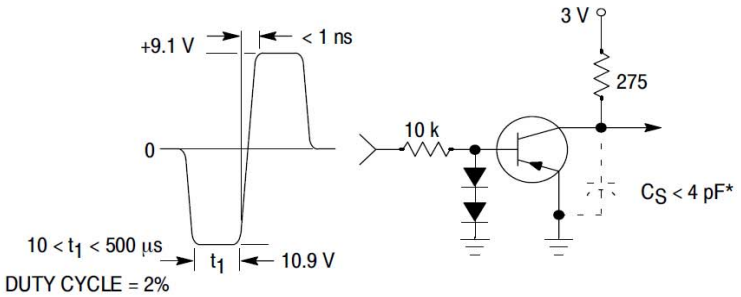
Parameter	Symbol	Ratings	Unit
Collector - Base Voltage	V_{CBO}	-40	V
Collector - Emitter Voltage	V_{CEO}	-40	V
Emitter - Base Voltage	V_{EBO}	-5	V
Collector Current -Continuous	I_C	-0.2	A
Collector Power Dissipation	P_C	625	mW
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	°C

ELECTRICAL CHARACTERISTICS (T_A= 25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-40	-	-	V	I_C= -10μA, I_E=0
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-40	-	-	V	I_C= -1mA, I_B=0
Emitter - Base Breakdown Voltage	$V_{(BR)EBO}$	-5	-	-	V	I_E= -100μA, I_C=0
Collector Cut-Off Current	I_{CBO}	-	-	-0.1	μA	V_{CB}= -40V, I_E=0
Collector Cut-Off Current	I_{CEX}			-50	nA	V_{CE}= -30V, $V_{BE(off)}$= -3V
Emitter Cut-Off Current	I_{EBO}	-	-	-0.1	μA	V_{EB} = -5V, I_C=0
DC Current Gain	h_{FE}	100	-	300		V_{CE}= -1V, I_C= -10mA
		60	-	-		V_{CE}= -1V, I_C= -50mA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-0.4	V	I_C= -50mA, I_B= -5mA
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	-	-	-0.95	V	I_C= -50mA, I_B= -5mA
Transition Frequency	f_T	250	-	-	MHz	V_{CE}= -20V, I_C= -10mA, f=100MHz

CHARACTERISTIC CURVES

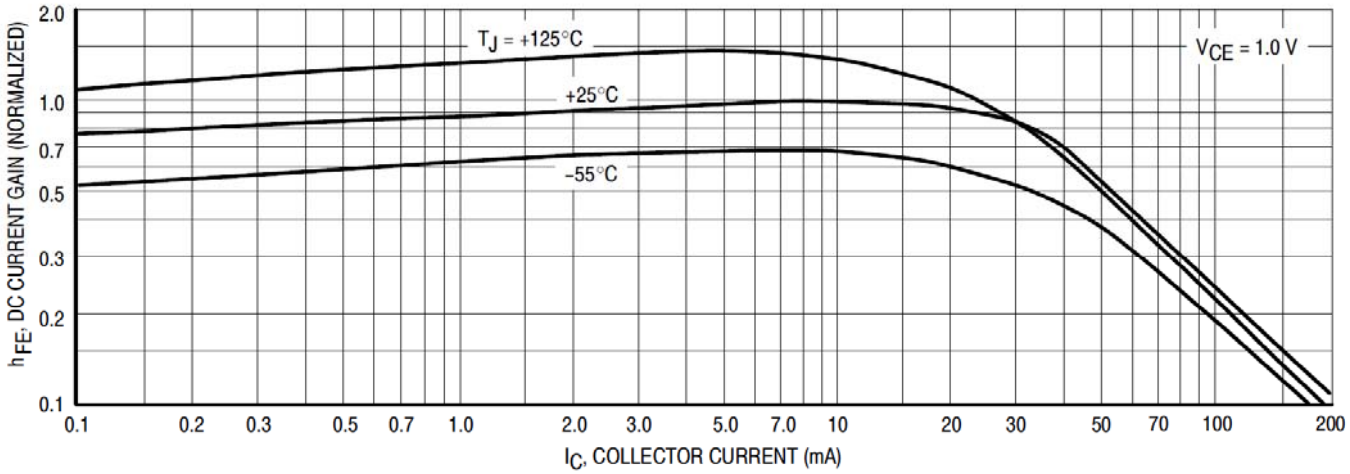




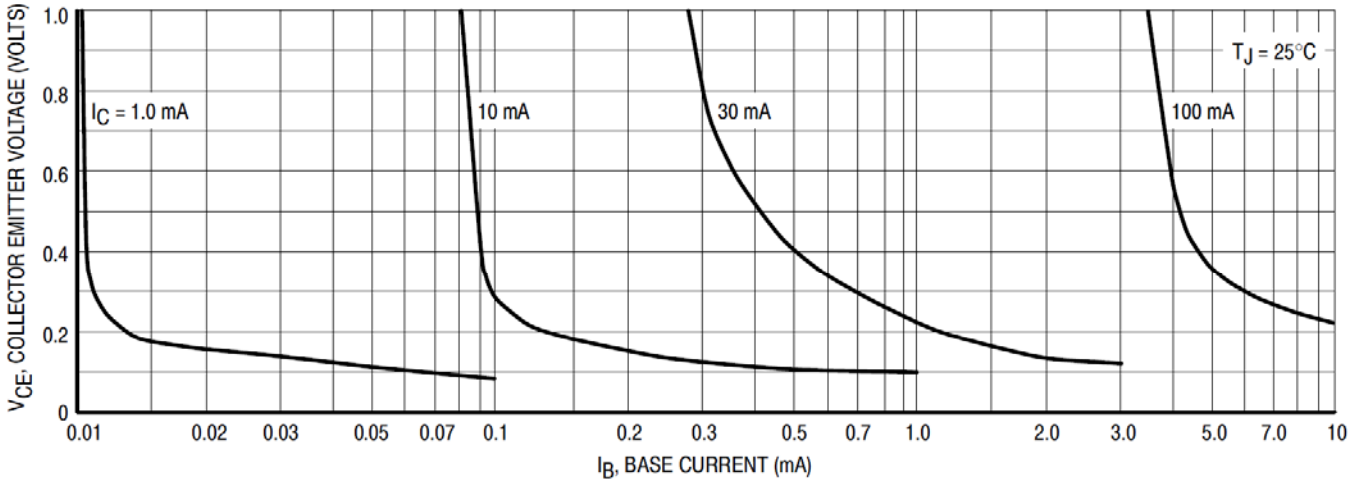
* Total shunt capacitance of test jig and connectors

Delay and Rise Time Equivalent Test Circuit

Storage and Fall Time Equivalent Test Circuit

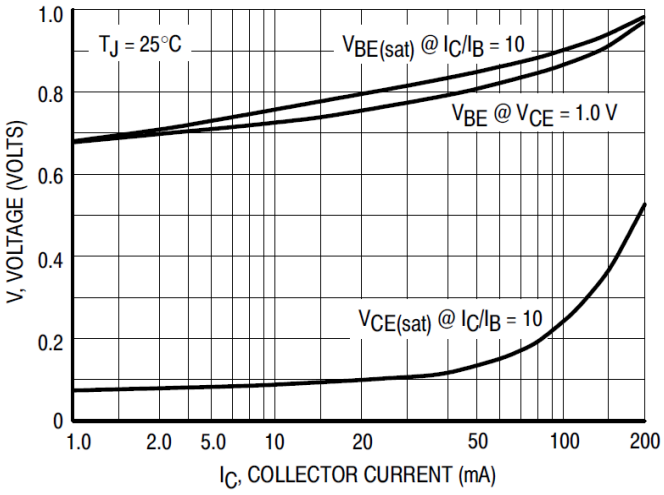


DC Current Gain

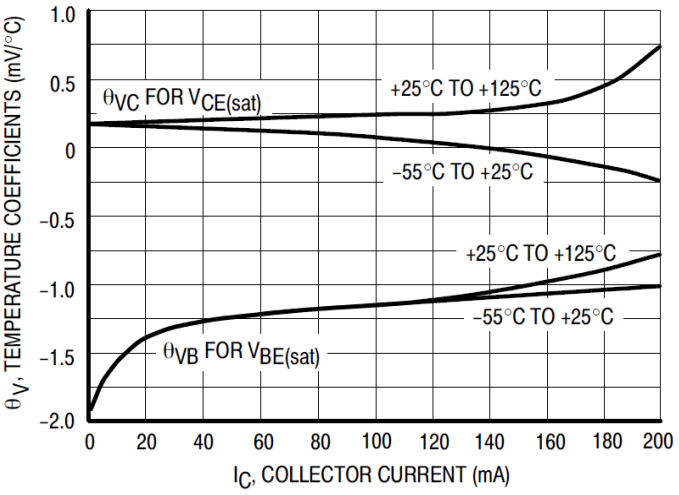


Collector Saturation Region

CHARACTERISTIC CURVES



"ON" Voltages



Temperature Coefficients