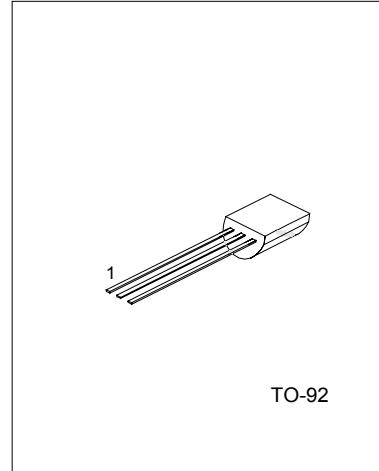


## GENERAL PURPOSE APPLIATION

## FEATURES

- \*Collector-Emitter Voltage:  $V_{CE0}=40V$
- \*Collector Dissipation:  $P_c(\max)=625mW$
- \*Complementary to 2N3904



1:EMITTER 2:BASE 3:COLLECTOR

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

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	$V_{CB0}$	-40	V
Collector-emitter voltage	$V_{CE0}$	-40	V
Emitter-base voltage	$V_{EB0}$	-5	V
Collector current	$I_c$	-200	mA
Base Current	$I_B$	-50	mA
Collector dissipation	$P_c$	625	mW
Junction Temperature	$T_j$	150	$^{\circ}C$
Storage Temperature	$T_{STG}$	-55 ~ +150	$^{\circ}C$

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

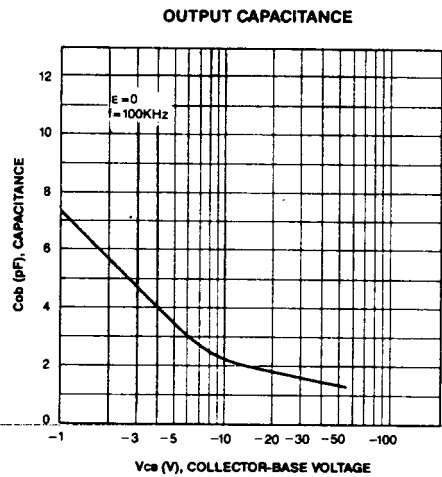
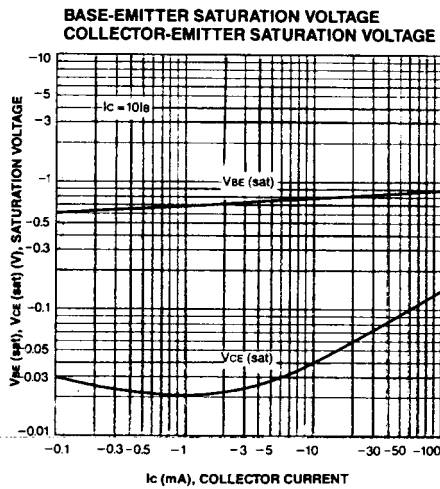
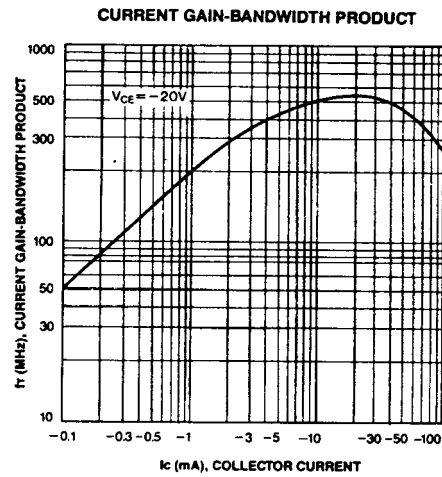
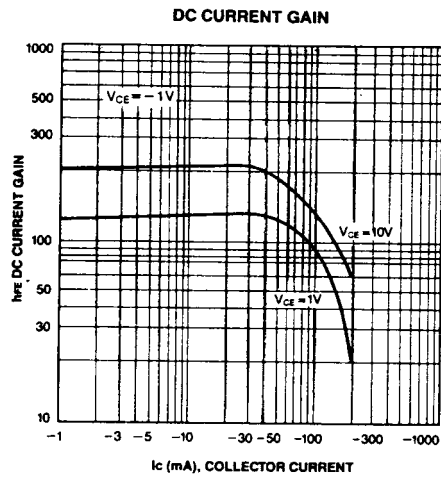
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-off Current	$I_{CEX}$	$V_{CE}=-30V, V_{EB}=-3V$			-50	nA
Base Cut-off Current	$I_{BL}$	$V_{CE}=-30V, V_{EB}=-3V$			-50	nA
Collector-base breakdown voltage	$V_{CB0}$	$I_c=-10\mu A, I_E=0$	-40			V
Collector-emitter breakdown voltage (note)	$V_{CE0}$	$I_c=-1mA, I_B=0$	-40			V
Emitter-base breakdown voltage	$V_{EB0}$	$I_E=-10\mu A, I_c=0$	-6			V
DC current gain (note)	$h_{FE1}$	$V_{CE}=-1V, I_c=-0.1mA$	60			
	$h_{FE2}$	$V_{CE}=-1V, I_c=-1mA$	80			
	$h_{FE3}$	$V_{CE}=-1V, I_c=-10mA$	100		300	
	$h_{FE4}$	$V_{CE}=-1V, I_c=-50mA$	60			
	$h_{FE5}$	$V_{CE}=-1V, I_c=-100mA$	30			
Collector-emitter saturation voltage (note)	$V_{CE(sat)1}$	$I_c=-10mA, I_B=-1mA$			-0.25	V
	$V_{CE(sat)2}$	$I_c=-50mA, I_B=-5mA$			-0.4	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	$I_c=-10mA, I_B=-1mA$	-0.65		-0.85	V
	$V_{BE(sat)2}$	$I_c=-50mA, I_B=-5mA$			-0.95	V
Transition voltage	$f_T$	$V_{CE}=-20V, I_c=-10mA, f=100MHz$	250			MHZ

# UTC 2N3906

# PNP EPITAXIAL PLANAR TRANSISTOR

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Output capacitance	Cob	V <sub>CB</sub> =-5V, I <sub>E</sub> =0, f=1MHz			4.5	pF
Turn on time	t <sub>ON</sub>	V <sub>CC</sub> =-3V, V <sub>BE</sub> =-0.5V, I <sub>C</sub> =-10mA, I <sub>B1</sub> =-1mA			70	ns
Turn off time	t <sub>OFF</sub>	I <sub>B1</sub> =I <sub>B2</sub> =-1mA			300	ns

Note: Pulse test: PW<=300μs, Duty Cycle<=2%



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