

# SILICON NPN TRANSISTOR EPITAXIAL PLANAR TYPE (PCT PROCESS)

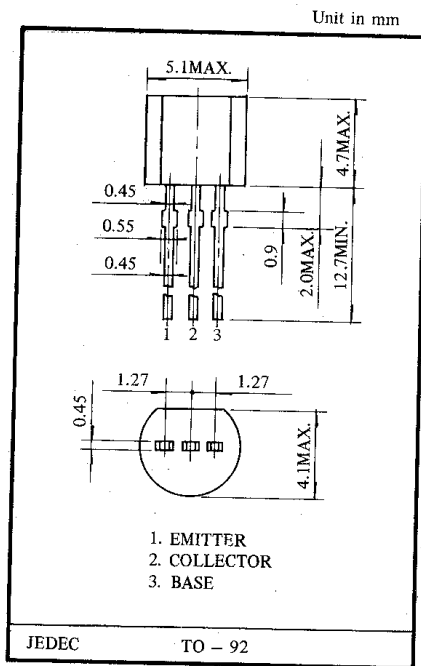
# 2SC3203

## APPLICATIONS

- Low Frequency Power Amplifiers  
(B-Class Push-pull,  $P_o=1W$ )
- General Purpose Switching Circuits

## FEATURES

- Excellent  $h_{FE}$  vs. Collector Current Characteristics
- $P_c=600mW$ ,  $I_c=800mA$  max.
- $V_{CE(sat)}=0.5V$  max at  $I_c=500mA$ ,  $I_B=20mA$
- Complementary to the 2SA 1271



## MAXIMUM RATINGS ( $T_a=25^\circ C$ )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector - Base Voltage	$V_{CBO}$	35	V
Collector - Emitter Voltage	$V_{CEO}$	30	V
Emitter - Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_c$	800	mA

CHARACTERISTIC	SYMBOL	RATING	UNIT
Emitter Current	$I_E$	-800	mA
Collector Power Dissipation	$P_c$	600	mW
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55~150	$^\circ C$

## ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ C$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut off Current	$I_{CBO}$	$V_{CB}=35V$ , $I_E=0$	-	-	100	nA
Emitter Cut off Current	$I_{EBO}$	$V_{EB}=5V$ , $I_c=0$	-	-	100	nA
Collector - Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_c=10mA$	30	-	-	V
DC Current Gain	$h_{FE(1)}$	$V_{CE}=1V$ , $I_c=100mA$	100	-	320	
	$h_{FE(2)}$	$V_{CE}=1V$ , $I_c=700mA$	35	-	-	
Collector - Emitter Saturation Voltage	$V_{CE(sat)}$	$I_c=500mA$ , $I_B=20mA$	-	-	0.5	V
Base - Emitter Voltage	$V_{BE}$	$V_{CE}=1V$ , $I_c=10mA$	0.5	-	0.8	V
Transition Frequency	$f_T$	$V_{CE}=5V$ , $I_c=10mA$	-	120	-	MHz
Output Capacitance	$C_{ob}$	$V_{CB}=10V$ , $f=1MHz$	-	13	-	pF

**NOTE: According to  $h_{FE}$  (1), Classified as follows**

0	100 - 200	Y	160 - 320
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