

# SILICON NPN TRANSISTOR EPITAXIAL PLANAR TYPE (PCT PROCESS)

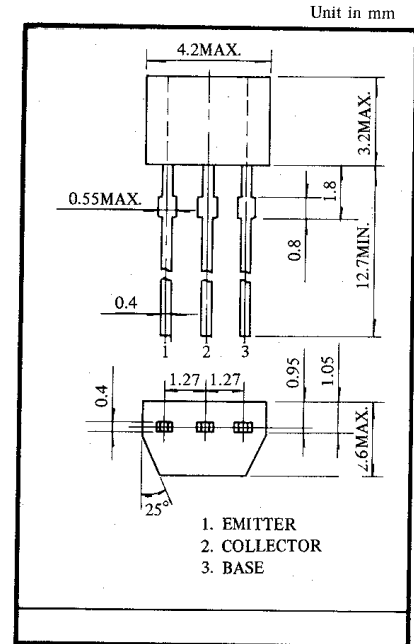
# 2SC3201

## APPLICATION

- Audio Amplifier Applications.

## FEATURES

- High Breakdown Voltage :  $V_{CE0}=120V$  (Min. ).
- High DC Current Gain :  $h_{FE}=200\sim700$ .
- Excellent  $h_{FE}$  Linearity :  $h_{FE}(0.1mA)/h_{FE}(2mA)=0.95$  (Typ.).
- Low Noise :  $NF=1dB$  (Typ. ),  $10dB$  ( Max. ).
- Complementary to 2SA1269.
- Small Package.



## MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT	CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	120	V	Emitter Current	$I_E$	-100	mA
Collector-Emitter Voltage	$V_{CEO}$	120	V	Collector-Power Dissipation	$P_C$	200	mW
Emitter-Base Voltage	$V_{EBO}$	5	V	Junction Temperature	$T_j$	125	°C
Collector Current	$I_C$	100	mA	Storage Temperature Range	$T_{stg}$	-55~125	°C

## ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=120V, I_E=0$	—	—	0.1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	—	—	0.1	$\mu A$
DC Current Gain	$h_{FE}$ (NOTE)	$V_{CE}=6V, I_C=2mA$	200	—	700	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10mA, I_B=1mA$	—	—	0.3	V
Transition Frequency	$f_T$	$V_{CE}=6V, I_C=1mA$	—	100	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	—	3.0	—	pF
Noise Figure	NF	$V_{CE}=6V, I_C=0.1mA$ $f=1kHz, R_g=10k\Omega$	—	1.0	10	dB

NOTE: According to  $h_{FE}$ , Classified as follows.

GR	200~400	BL	350~700
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