SILICON NPN TRANSISTOR
EPITAXIAL PLANAR TYPE (PCT PROCESS)

2SC3201

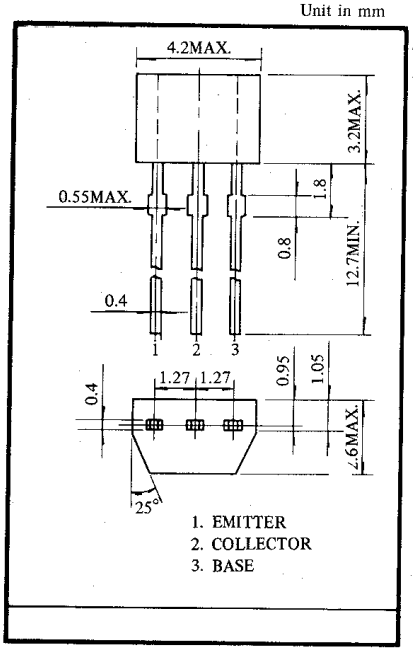
APPLICATION

■ Audio Amplifier Applications.

FEATURES

- High Breakdown Voltage : V_{CEO}=120V (Min.).
- High DC Current Gain : h_{FE}=200~700.
- 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.

Unit in mm



MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	120	V
Collector-Emitter Voltage	V_{CEO}	120	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	100	mA

CHARACTERISTIC	SYMBOL	RATING	UNIT
Emitter Current	I_E	−100	mA
Collector-Power Dissipation	P_C	200	mW
Junction Temperature	T_j	125	℃
Storage Temperature Range	T_{stg}	-55~125	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=120V, I_E=0	—	—	0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=5V, I_C=0	—	—	0.1	μA
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=10kΩ	—	1.0	10	dB

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

GR	200~400	BL	350~700

KEC