SILICON NPN TRANSISTOR
EPITAXIAL PLANAR TYPE (PCT PROCESS)

2SC 3203

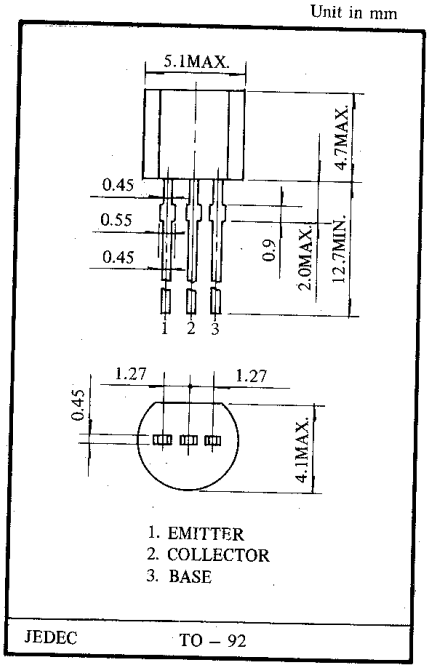
APPLICATIONS

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

FEATURES

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

Unit in mm



1. EMITTER
2. COLLECTOR
3. BASE

JEDEC TO – 92

MAXIMUM RATINGS (Ta=25℃)

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	℃
Storage Temperature Range	T_{stg}	−55~150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃)

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

O	100 – 200	Y	160 – 320