

# SILICON PNP TRANSISTOR EPITAXIAL PLANAR TYPE (PCT PROCESS)

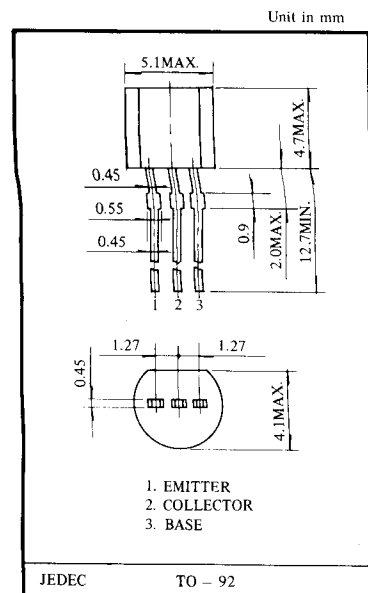
# 2SA1270

## APPLICATIONS

- Low Frequency, Low Power Amplifiers
- General-driver Stage Amplifiers
- General Purpose Switching Applications

## FEATURES

- Excellent  $h_{FE}$  vs. Collector Current Characteristics,  
 $h_{FE}(2) = 25\text{min. at}$   
 $V_{CE} = -6V, I_C = -400\text{mA}$
- $I_C = \text{max.} = -500\text{mA}$
- $P_C = \text{max.} = 500\text{mW}$
- Complementary to the 2SC 3202



## ■ MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	RATING	UNIT	CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector - Base Voltage	$V_{CBO}$	-35	V	Emitter Current	$I_E$	500	mA
Collector - Emitter Voltage	$V_{CEO}$	-30	V	Collector Power Dissipation	$P_C$	500	mW
Emitter - Base Voltage	$V_{EBO}$	-5	V	Junction Temperature	$T_j$	150	$^\circ\text{C}$
Collector Current	$I_C$	-500	mA	Storage Temperature Range	$T_{stg}$	-55~150	$^\circ\text{C}$

## ■ ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut off Current	$I_{CBO}$	$V_{CB} = -35V, I_E = 0$	-	-	-0.1	$\mu\text{A}$
Emitter Cut off Current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$	-	-	-0.1	$\mu\text{A}$
DC Current Gain(1)	$h_{FE(1)}$	$V_{CE} = -1V, I_C = -100\text{mA}$	70	-	240	
DC Current Gain(2)	$h_{FE(2)}$ (Pulsed)	$V_{CE} = -6V, I_C = -400\text{mA}$	25	-	-	
Collector - Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -100\text{mA}, I_B = -10\text{mA}$	-	-0.1	-0.25	V
Base - Emitter Voltage	$V_{BE}$	$I_C = -100\text{mA}, V_{CE} = -1V$	-	-0.8	-1.0	V
Transition Frequency	$f_T$	$V_{CE} = -6V, I_E = 20\text{mA}$	-	200	-	MHz
Output Capacitance	$C_{ob}$	$V_{CB} = -6V, I_E = 0, f = 1\text{MHz}$	-	13	-	pF

■ Note: According to  $h_{FE}(1)$  Classified as follows

0	70~140	Y	120~240
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